


Министерство образования Московской области

Государственное бюджетное профессиональное образовательное учреждение  
Московской области  
«Авиационный техникум имени В.А. Казакова»

УТВЕРЖДАЮ

Зам. директора по УМР

  
М.В. Иванова

« \_\_\_\_\_ » 2019 г.

Цикловая комиссия общеобразовательных и  
естественнонаучных дисциплин

## УЧЕБНО – ПРАКТИЧЕСКОЕ ПОСОБИЕ

Основы авиации

PART 2 (units 6-11)

по дисциплине «Иностранный язык в профессиональной деятельности»

для студентов 2-4 курсов

специальности 25.02.06 Производство и обслуживание авиационной техники

РАССМОТРЕНО

на заседании предметно-цикловой комиссии  
общеобразовательных и естественнонаучных  
дисциплин

СОСТАВИЛИ:

Иванова Н.К.

Минакова Е.Г.

Широкая Е.В.

Протокол №

от « \_\_\_\_\_ »

201\_ года

Председатель ЦК:

2019

Министерство образования Московской области

Государственное бюджетное профессиональное образовательное учреждение  
Московской области  
«Авиационный техникум имени В.А. Казакова»

УТВЕРЖДАЮ

Зам. директора по УМР

\_\_\_\_\_ М.В. Иванова

« \_\_\_\_\_ » \_\_\_\_\_ 2019 г.

Цикловая комиссия общеобразовательных и  
естественнонаучных дисциплин

**УЧЕБНО – ПРАКТИЧЕСКОЕ ПОСОБИЕ**  
**Основы авиации**  
**PART 2 (units 6-11)**

по дисциплинт «Иностранный язык в профессиональной деятельности»

для студентов 2-4 курсов

специальности 25.02.06 Производство и обслуживание авиационной техники

РАССМОТРЕНО  
на заседании предметно-цикловой комиссии  
общеобразовательных и естественнонаучных  
дисциплин

СОСТАВИЛИ:  
Иванова Н.К.  
Минакова Е.Г.  
Широкая Е.В

Протокол №7  
от «28» февраля 2019 года  
Председатель ЦК:  
Басенкова В.Н.

**2019**

Учебное пособие по английскому языку предназначено для студентов 2-4 курсов специальности 25.02.06 «Производство и обслуживание авиационной техники». Данное пособие рассчитано на формирование коммуникативной компетенции на специализированном материале при овладении дисциплин «Иностранный язык» и «Иностранный язык в профессиональной деятельности».

Цель курса – приобретение студентами коммуникативной компетенции, уровень которой позволяет использовать иностранный язык как в профессиональной (производственной и научной) деятельности, так и для целей самообразования. Под коммуникативной компетенцией понимается умение соотносить языковые средства с конкретными сферами, ситуациями, условиями и задачами общения. Соответственно, языковой материал рассматривается как средство реализации речевого общения, при его отборе осуществляется функционально-коммуникативный подход.

Учебное пособие состоит из 5 частей по авиационной тематике, содержащих оригинальные тексты с системой упражнений и лексическим материалом необходимым для успешного перевода специальной литературы и технической документации. Лексический материал и предложенные упражнения позволяют сформировать достаточную языковую компетенцию для успешного осуществления коммуникации в рамках профессиональной деятельности. Материал пособия охватывает тематику: Самолет/вертолет. Основные части самолета/вертолета. Обязанности бортинженера/ механика / бортоператора / бортпроводника. Руководство по техническому обслуживанию (материалы и документы ИКАО по техническому обслуживанию). Тексты снабжены словарями и упражнениями.

Учебное пособие может использоваться для аудиторной и самостоятельной работы студентов.

## Оглавление

<b>UNIT 6</b> .....	7
PHONETICS .....	7
GRAMMAR .....	7
Simple Past (Regular): .....	7
Modal verbs: CAN, MUST, MAY .....	8
Past Continuous: .....	8
CONVERSATION PRACTICE .....	8
MY LIFE STORY .....	9
BOEING 707 FLIGHT .....	9
TEST.....	15
REVIEW.....	18
TEST.....	18
<b>UNIT 7</b> .....	19
GRAMMAR .....	19
Comparison (Adjectives, Adverbs): .....	19
Impersonal Sentences .....	20
Passive Voice.....	20
CONVERSATION PRACTICE .....	20
IL-86 .....	22
THE B-747 .....	22
A-300 AIRBUS .....	22
GLOSSARY .....	25
AIRCRAFT SERVICING (ICAO /aɪ'keɪvɪŋ/ Manual) .....	26
TEST.....	28
TU-204 .....	30
MI-8.....	30
TEST.....	31
<b>UNIT 8</b> .....	32

Grammar .....	32
Simple Future .....	32
Present Continuous for Planned Actions .....	33
MODAL VERBS.....	33
Future Continuous .....	33
Future Simple Passive .....	33
Conversation Practice .....	33
AIRCRAFT MAINTENANCE .....	34
Glossary .....	37
AIRCRAFT MAINTENANCE (ICAO Manual).....	37
TEST.....	38
<b>UNIT 9</b> .....	40
Grammar.....	40
Present Perfect Active.....	40
Present Perfect Passive .....	41
Present Perfect Continuous.....	41
CONVERSATION PRACTICE .....	42
A FLIGHT ENGINEER.....	42
GLOSSARY .....	44
ICAO Manual. Aircraft Servicing Equipment.....	44
TEST.....	45
<b>UNIT 10</b> .....	48
Phonetics, Silent Letters .....	48
Grammar.....	48
CONVERSATION PRACTICE .....	49
AIRCRAFT MAINTENANCE .....	49
Glossary. Basic Tools.....	52
TEST.....	53
<b>UNIT 11</b> .....	55
THE DUTIES OF MAINTENANCE TECHNICIAN.....	55

STRUCTURAL INSPECTION.....	58
REVISION TESTS.....	65
FAILURES .....	72
TEST.....	74
ДОПОЛНИТЕЛЬНЫЙ МАТЕРИАЛ .....	75
TEST.....	78
TEST.....	79
REVIEW.....	80
The Main Parts of the Aircraft.....	80
REVIEW.....	84
HELICOPTER MAIN PARTS .....	84
TEST.....	88
AIRPORTS.....	89
PASSPORT AND CUSTOMS REGULATIONS .....	90
THE AIRPORT .....	91
EXAMINATION TICKETS .....	<b>Ошибка! Закладка не определена.</b>

## UNIT 6

### PHONETICS

1. A friend in need is a friend indeed.
2. We never know the value of water until the well is dry.
3. Don't trouble trouble until trouble troubles you.
4. Whether the weather is cold or whether the weather is hot  
We'll whether the weather whatever the weather  
Whether we like it or not.
5. All's well that ends well.
6. Every dog has his day.
7. Better late than never.
8. East or West, home is best.
9. An apple a day keeps the doctor away.
10. Everything is good in its season.
11. The more we study, the more we know.  
The more we know, the more we forget.  
The more we forget, the less we know.  
The less we know, the less we forget.  
The less we forget, the more we know.

### GRAMMAR

#### Simple Past (Regular):

I locked (lock + ed) the door.

We didn't lock the door.

Did she lock the door?

#### Remember!

*Yesterday, yesterday morning, yesterday afternoon, yesterday evening, the day before  
yesterday, last night, last week, last month, last year, an hour ago, a year ago*

I liked London. We flew to London last year. We didn't fly to London last year.

Did you fly to London last year? — Yes, we did. — No, we didn't.

We had some problems in flight.

We had no problems in flight.

We didn't have any problems in flight.

Did you have any problems in flight?

## Modal verbs: CAN, MUST, MAY

### can - could

I can help you. I could help you.

I am able to help you. -I was able to help you.

### may - might

He may come. - He might come.

### must

have to - had to

be to (am, is, are) — was to; were to

You must check the oil.

You had to check the oil.

You were to check the oil.

You had to do it.

You didn't have to do it.

Did you-have to do it? - Yes. I did. – No, I didn't.

I was to fly. We were to fly. Who was to fly?

He was to arrive at 9. We were to land at 5.

## Past Continuous:

The plane was flying to London at 10 o'clock.

We were refueling for 20 minutes. (for — в течение)

What were you doing in flight? — I was watching the instruments.

How long were you repairing the engine? — We were repairing the engine for an hour

## CONVERSATION PRACTICE

### Leant the new words:

to be born - родиться

to go to school - ходить в школу

age - возраст

at the age (of) - в возрасте

to leave school - окончил школу

to enter a college - поступить в училище

to graduate (from) - окончить (высшее учебное заведение)

to become (became) - становиться, стать

to begin (began) - начинать, начинаться



to marry (to get married) - жениться, выйти замуж

to be married - быть женатым, замужем

**Read the text and write your own story:**

## **MY LIFE STORY**

I was born in 1946 in Kiev. At the age of 7 I went to school and at the age of 17 I left school, then I entered the Civil Aviation Institute (1968). I graduated from the Institute and became an engineer. I began to fly as a flight engineer. I got married in 1970. My elder son was born in 1971, now he is a pilot. In 1973 my daughter was born. Now we have two children: the son and the daughter.

**1. Answer the following questions:**

1. When were you born?
2. Where were you born?
3. How old are you?
4. Are you married?
5. At what age did you go to school?
6. When did you enter the institute?
7. What institute did you enter?
8. When did you graduate from the institute?
9. When did you begin to fly?
10. Are you a flight engineer? (a mechanic)
11. When did you marry?
12. What does your wife do?
13. Does she work?
14. Have you got children?
15. How many children have you got?
16. When was your son (daughter) born?
17. How old is your son (daughter)?
18. Do your children go to school?
19. Is your son a student (a schoolboy)?
20. What does your son (daughter) do?

**Read the text and discuss it:**

## **BOEING 707 FLIGHT**

There were 3 pilots and 5 stewardesses. It carried 199 passengers and 25 000 US gallons of fuel.

There were 4 Pratt and Whitney turbofan jet engines providing a cruising speed of 605 miles per hour. The aircraft's range at maximum weight was 6 000 miles. The aircraft's cost was six and a half million dollars.

The day before yesterday it flew to Germany. Two hours out from the airport an engine overheated. The captain ordered to shut it down. The passengers didn't know they were operating with three engines instead of four.

If necessary the aircraft could fly on one engine. They informed maintenance about their trouble and a crew of mechanics was waiting. They towed the aircraft to a hangar. They disembarked passengers and cargo.

While they were taxiing to the hangar the diagnostic specialists located the trouble quickly. A pneumatic duct — a pipe around the engine cracked in flight.

They were to inspect the engine. Hot air got into the engine nacelle and this heat damaged many wires in the electrical system. There was little space in the engine nacelle; two men could operate this space. They were to locate the wires and replace them. Electrical mechanics did the work well.

A crack crew of mechanics and electricians did the job. It took an hour to replace the engine cowlings and to run up the engine on the ground. They test flew the plane, and then loaded it. They were loading baggage, mail and freight. They took an extra 2 000 pounds of fuel for taxiing and ground running.

### Learn the new vocabulary:

carry	находиться на борту;	hour	час
перевозить		if	если
cost v, n	стоить; стоимость	instead of	вместо
cowling	капот двигателя	jet	реактивный
crack v,n	трескаться; трещина	job	работа
cruising	крейсерская скорость	know	знать
damage v,n	повреждать;	load v,n	загружать; груз
повреждение		maximum	максимальный
diagnostic	диагностический	mile	миля
disembark	высаживать (пассажиров),	million	миллион
выгружать		necessary (if necessary)	необходимый
dollar	доллар	operate	работать
duct	трубопровод, канал	order v	приказывать
electrician	электротехник	overheat	перегревать(ся)
embark	произвести посадку	per	по, в, на
(пассажиров),	загружать	pipe	труба, трубопровод
extra	дополнительный	pneumatic	воздушный,
gallon	галлон (Am.E. 3,78 л; Br.E. 4,54 л)	пневматический	
Germany	Германия	round	фунт (453,6 г)
half	половина	provide	обеспечивать
hot	горячий	quickly	быстро

range дальность  
 shut down выключать, останавливать  
 space пространство, место  
 specialist специалист  
 tow буксир; буксировать  
 towing буксировка  
 trouble v,n беспокоить;  
 неисправность

turbofan турбовентиляторный;  
 турбореактивный двигатель  
 unload разгружать  
 wait (for) ждать  
 weight вес  
 while пока, в то время как

**Note:**

It takes me an hour to check the equipment.  
 It doesn't take me much time to check the units.  
 Does it take you much time to check the units?  
 How much time does it take you to check it?  
 It took me an hour to check the equipment.  
 It didn't take me much time to check it.  
 Did it take much time to check it?  
 How much time did it take you to check it?

**I. Answer the questions:**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. How many pilots were there in the plane?</li> <li>2. Was there a navigator in the crew?</li> <li>3. How much fuel was there?</li> <li>4. How many engines were there?</li> <li>5. What type of engines were they?</li> <li>6. What cruising speed did they provide?</li> <li>7. What was the range?</li> <li>8. What was the aircraft's cost?</li> <li>9. Where did they fly?</li> <li>10. Were they operating with one engine?</li> <li>11. On how many engines could they fly?</li> </ol> | <ol style="list-style-type: none"> <li>12. What was their trouble?</li> <li>13. A crew of mechanics was waiting, wasn't it?</li> <li>14. Did the specialists locate the trouble quickly?</li> <li>15. What did they have to do with the engine?</li> <li>16. How many people could operate in the engine nacelle?</li> <li>17. How much time did it take to replace the engine cowlings and to run up the engine on the ground?</li> <li>18. How much extra fuel did they take?</li> </ol> |
|---|--|

**2. Change these statements to questions:**

1. *He flew to London this week. — Did he fly to London?*
2. They got to the airport at 5.
3. I took a taxi to the airport.
4. I had a problem with flaps.

5. They left the plane 10 minutes ago.
6. He went home after flight.
7. There was much cargo in the plane.
8. I saw this engine a year ago.
9. He spoke English well.
10. I drove the car to the airport.

**3. Finish these sentences:**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <i>You spoke English, ...? — You spoke English, didn't you?</i></li> <li>2. You were in London, ...?</li> <li>3. You had little fuel, ...?</li> <li>4. He was at the airport, ...?</li> <li>5. You knew the captain well, ...?</li> <li>6. He lost the key, ...?</li> <li>7. He forgot his tool kit, ...?</li> <li>8. They left London. ...?</li> </ol> | <ol style="list-style-type: none"> <li>9. The crew was in the plane, ...?</li> <li>10. You weren't able to locate the fault, ...?</li> <li>11. You can repair engines, ...?</li> <li>12. He replaced the valve, ...?</li> <li>13. You could lower the gear, ...?</li> <li>14. They flew to Paris, ...?</li> <li>15. He was to fly to London, ...?</li> <li>16. You had to refuel, ...?</li> </ol> |
|---|---|

**4. Put the verbs into the Past Continuous Tense:**

1. *What . . . you . . . (do)? — What were you doing?*
2. Where . . . you . . . (fly)?
3. Why . . . you . . . (replace) the unit?
4. What time . . . you . . . (leave)?
5. Who . . . (call) me?
6. What report you (write)?
7. Who . . . you . . . (meet) at the airport?
8. What instrument . . . he . . . (watch)?
9. Who . . . (speak) to you?
10. They . . . (load) the plane.

**5. Make the sentences negative:**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <i>He flew to London. — He didn't fly to London.</i></li> <li>2. He made some minor repairs.</li> <li>3. We made an inspection of the units.</li> <li>4. They changed the engine oil.</li> <li>5. He took the first copy.</li> </ol> | <ol style="list-style-type: none"> <li>6. They located the faulty equipment.</li> <li>7. He did much work before the flight.</li> <li>8. The engineer had to replace the tyre.</li> <li>9. We needed a mechanic.</li> <li>10. He wrote the technical report.</li> </ol> |
|--|---|

11. He locked the plane.
12. They began refueling.

13. The passengers left the plane.
14. The gear retracted.

## 6. Make up questions with 'who' and 'what':

1. *She saw him at the airport. — Who saw him? Who did she see? (Whom did she see?)*
2. I gave him a tool kit.
3. He watched the instruments in flight.
4. He inspected the units.
5. We repaired the engine.
6. He could locate the failure.
7. We were to drain the oil.
8. They had to replace the unit.
9. They were able to lower the gear.
10. They sent us some spare parts.

## 7. Answer the following questions:

1. Who met you at the airport?
2. Whom did you give the first copy?
3. Who sent you spare parts?
4. Who did you meet at the airport?
5. Who forgot his passport?
6. Who took the bucket?
7. Who made an inspection of the plane?
8. Who did you brief after the flight?
9. Who called a mechanic?
10. Who had to repair the flaps?
11. Who did you see in the hangar?
12. Who did you assist in flight?
13. Who did you speak to about your trouble?
14. Who assisted you to repair the unit?
15. You had a problem in flight, didn't you?
16. He flew to Moscow, didn't he?
17. The crew was in the plane, wasn't it?
18. You were in London, weren't you?

## 8. Use Simple Past

1. *We . . . (fly) to London last week. — We flew to London last week.*
2. They . . . (have) some problems in flight.
3. He . . . (send) some spare parts.
4. I . . . (must make) some minor repairs.
5. Who . . . (do) it for you?
6. When . . . (be) you in London?
7. He . . . (check) the engines.
8. He (make) . . . an inspection of the plane.
9. She . . . (dust) the carpets in the plane.
10. I . . . (write) the technical report.
11. I . . . (can locate) the failure.
12. We . . . (understand) him.

## 9. Use Simple Past

1. *There's some fuel in the tank. —  
There was . . . .*
2. There's much water in the tank.
3. There's no snow on the wing.
4. There are many passengers in the cabin.
5. There's some cargo in the hold.
6. There are not many crew members.
7. There's no oil there.
8. The crew members are in the cockpit.
9. The passengers are in the passenger cabins.
10. The cargo is in the cargo hold.
11. The baggage is in the baggage cabin.
12. The stewardesses are in the plane.

### 10. Use "when" in questions:

1. *We left London on Sunday. —  
When did you leave London?*
2. They flew to Moscow last week.
3. He became an engineer a year ago.
4. He inspected the systems before the flight.
5. The engine failed during landing.
6. We landed at 5 o'clock.
7. They took off at 7 o'clock.
8. He replaced the brakes yesterday.
9. I wrote the report after landing.
10. We began to learn English a month ago.
11. They came to London a week ago.
12. He kept records in flight.
13. We were at the airport yesterday.
14. They were in flight at 2 o'clock.

### 11. Read the following verbs:

closed lived opened liked asked helped looked walked stopped waited ended landed loaded unloaded equipped checked changed used replaced inspected briefed listed parked provided repotted retracted started supported worked handled assisted operated repaired watched locked climbed towed pushed

### Glossary

#### Learn the special vocabulary:

climb набирать высоту

descend снижаться

remain оставаться

come (up to) подходить

passenger steps трап

ground running наземная "гонка"  
(двигателя)

show доказывать, предъявлять

supervisor заправщик; (руководитель полетов)

service units средства; удобства

catering борТПитание

grade (of fuel) тип (топлива)

gasoline grade сорт горючего

oil grade тип масла  
 (delivery) receipt квитанция,  
 требование  
 from overwing с крыла, через крыло  
 from underneath снизу  
 passport паспорт  
 certificate паспорт  
 stairs (stairways) трап  
 integral stairs встроенная лестница,  
 трап  
 mobile stairs передвижной трап  
 retractable stairway убирающийся  
 трап  
 cover покрывка; покрывать  
 pressure gauge манометр  
 pliers пассатижи

set устанавливать; установка,  
 агрегат  
 soldering iron паяльник  
 AC — alternate current  
 переменный ток  
 DC — direct current постоянный  
 ток  
 air conditioner кондиционер  
 ampere ампер  
 generator генератор, источник  
 энергии  
 seal заглушка; плотно закрывать  
 towable passenger steps  
 буксируемый пассажирский  
 трап

### Read, translate and learn the following:

We need passenger steps. Send us passenger steps/ emergency slide/ air stair/ boarding ramp. We're waiting for the supervisor. Where's the supervisor? He's coming up to the aircraft. Show the passport, please. What's the grade of fuel? Let's check the oil grade. Here's the receipt. We refuel from underneath. Let's start refueling from overwing. We need a GPU (ground power unit) not less than on 1 500 amperes to start up the engines. Show me the certificate for fuel. We need service units. Have you got pliers? I need soldering iron. Let's check the seal. Set the seals to the nozzles. We have to set the seals to the nozzles.

## TEST

### 1. Use Past Simple:

1. She dusts the plane.
2. He checks the engines.
3. I write a technical report.
4. He adjusts the units.
5. We fly to Moscow.
6. They have some problems in flight.
7. He does much work in the cockpit.
8. We make an inspection of the units.
9. He handles the controls for flaps.
10. I run up the engines.
11. He opens the cockpit.
12. I change the fuse.
13. He can't repair the pump.

## 2. Use Past Continuous:

1. We're flying to Helsinki.
2. She's dusting the plane.
3. He's speaking to the station engineer.
4. We're keeping the records.
5. He's writing a technical report. 6. They're doing much work in the air.
7. We're having some problems.

## 3. Make up questions:

1. My friend was born in 1947.
2. My son went to school at the age of 7.
3. He entered the Civil Aviation Institute in 1965.
4. He became a flight engineer in 1970.
5. We began to fly in 1970.

## 4. Make the sentences negative:

1. They had to replace the wires.
2. B707 carried 400 passengers.
3. Its cost was 7 million dollars.
4. The day before yesterday they flew to Spain.
5. The passengers knew about the failure.
6. Hot air got into the passenger cabin.

## 5. Use Past Simple:

1. We must take some extra fuel for taxiing.
2. Two men can operate in the engine nacelle.
3. They are to fly to Germany.
4. They must disembark passengers and freight.
5. A crew of mechanics is to help them.

8. The charwomen are cleaning the plane.
9. They're inspecting the engines.
10. I'm watching the engine instruments.
11. We're replacing the wheel.
12. The mechanics are repairing the engine.
13. He's adjusting the latch.
14. The engines are running normally.

6. There were 3 crew members.
7. They flew to Germany on Sunday.
8. They were operating with three engines.
9. A crew of mechanics was waiting at the airport.
10. They were to replace the engine.

7. The heat damaged many systems.
8. There was much space in the engine nacelle.
9. The mechanics did the work quickly.
10. It took much time to replace the engine.

6. The aircraft can fly on one engine.
7. They have to operate with 3 engines.
8. They're to inform the maintenance about the trouble.
9. He has to shut down the engine.
10. The diagnostic specialists are to locate the fault. —
11. He mustn't replace the engine.



## 6. Translate into English:

1. На каком самолете вы летаете? На каком самолете вы летали?
2. Сколько пассажиров должны мы взять? Вы взяли много грузов?
3. Вы можете заменить колесо? Вы смогли заменить колесо?
4. Где ваш багаж? Он в самолете? Багаж был в самолете?
5. У вас много груза? У вас было много груза?
6. Вы член экипажа? Вы были членом экипажа?
7. Вы инженер? Вы были инженером?
8. У вас много работы на земле? У вас было много работы?
9. В самолете нет пассажиров. В самолете были пассажиры.
10. Сколько есть рейсов в Лондон? Сколько было рейсов в Лондон?
11. У нас много топлива. У нас было много топлива.
12. У нас много проблем. У вас были проблемы?
13. Сколько членов в вашем экипаже? Вас было 5 в экипаже?
14. Сколько времени занимает разгрузка? Она заняла много времени?
15. Много времени до полета? Много было времени до полета?
16. Мы сейчас заменяем фильтр. Мы заменяли фильтр.
17. Вы собираетесь заменить двигатель? Мы собирались в Лондон.
18. Вы пишете отчет? Вы писали отчет в полете?
19. Экипаж должен быть в самолете. Экипаж был в самолете?
20. Нам нужна холодная вода. Нам нужна была вода.
21. Нам приходится ремонтировать в полете.
22. Вам нужны были запчасти?
23. Заправка не заняла много времени.
24. Мы должны были заменить этот агрегат.
25. Я не мог запустить левый двигатель.
26. Я не могу понять вас.
27. Вы были в Москве на прошлой неделе?
28. Мы собираемся опробовать двигатели.

## REVIEW

*Present Simple /Present Continuous*

*Past Simple*

*Modal Verbs*

*Can = Be Able To*

*Must = Have To = Be To*

## TEST

### a) Use the Past Simple:

do — go - become — see — leave — begin — have — get — be send — fly - come  
— give— . speak— bring — know — make — meet — write — lose —

### b) Write a story like this using Simple Past

#### AN-26 FLIGHT

There were 5 crew members, it carried 5 tons of cargo and 7 000 of fuel in its tanks. There were 2 AN-24 VT turboprop engines providing cruising speed up to 450 km/h.

Its range at maximum weight was 2 000 km. It was flying to Minsk. 30 minutes out from the airport No. 2 engine failed. The captain ordered to switch it off. The plane was operating with one engine and APU RU-19 — A-300.

They informed the maintenance about the trouble. They unloaded the cargo alter landing. The specialists located the trouble — a propeller duct cracked in flight and oil was leaking away. They were to replace the duct.

### c) Answer the following questions:

1. How many crew members were there?
2. How much cargo did it carry?
3. How much fuel was there in the tanks?
4. What was the cruising speed?
5. How many engines were there?
6. What was the type of the engines?
7. What was its weight?
8. What was its range?
9. Where were they flying?
10. What engine failed?
11. Whom did they inform?
12. What was the problem?
13. What cracked in flight?
14. What did they have to do?
15. Did they have to unload the cargo?

### d) Translate into English:

перевозить, обеспечивать, перегреваться, выключить двигатель, буксировать, беспокоить, высаживать пассажиров, загружать, повреждать, реактивный, крейсерская скорость, дальность, вес, стоимость, буксировка, труба, трубопровод, трещина, капот двигателя, груз, пространство, горячий воздух,

быстро, оставаться, подходить, заглушка, трап, устанавливать, показывать, крышка, заправщик, бортипитание, генератор, тип масла, квитанция, манометр, кондиционер, паспорт, пассажижи, паяльник, писать, приносить, покидать, летать, заменять, ремонтировать, запускать, опробовать

## UNIT 7

### GRAMMAR

#### Comparison (Adjectives, Adverbs):

##### a) Adjectives

new — newer — newest новый

high — higher — highest высокий

late — later — latest поздний

early — earlier — earliest ранний

long — longer — longest длинный

big — bigger — biggest большой

slow — slower — slowest медленный

cheap — cheaper — cheapest дешевый

quick — quicker — quickest быстрый

old — older (elder) — oldest (eldest) старый

- b) modern — more modern — (the) most modern современный  
expensive — more expensive — (the) most expensive дорогой  
difficult — more difficult — (the) most difficult трудный  
difficult — less difficult — (the) least difficult

- c) good (well) — better — best хороший  
bad (badly) — worse — worst плохой  
little less - least маленький, мало  
many (much) — more — most много

##### d) Adverbs

quickly — more quickly — most quickly быстро  
— quicker quickest

slowly — more slowly — most slowly медленно  
— slower — slowest

quietly — more quietly — most quietly тихо, спокойно  
Speak slower, please!

Taxi quicker, please!  
 A-320 is more modern than A-300.  
 The fuel pressure is getting lower.  
 The temperature is becoming higher.  
 This engine is more powerful.

## Impersonal Sentences

It is \_\_\_\_\_ to locate the fault.

difficult	трудно
easy	легко
necessary	необходимо
important	важно
possible	возможно
impossible	невозможно

## Passive Voice

### TO BE+PARTICIPLE II

We speak English. — English is spoken here.  
 We make inspection. — Inspection is made.  
 They drain waste water. — Waste water is drained.  
 I close the hatch. — The hatch is closed.  
 They fill the tanks. — The tanks are filled.  
 I repair the wheel. — The wheel is repaired.  
 They send a tow unit. — A tow unit is sent.  
 I brief the station engineer. — The station engineer is briefed.  
 I write a report. — The technical report is written.  
 You must clean the plane. — The plane must be cleaner}  
 I must lock the gear. — The gear must be locked.  
 I can repair the engine. — The engine can be repaired.  
 I may call a mechanic. — A mechanic may be called.

## CONVERSATION PRACTICE

### Learn the new words:

(hat) rack	полка (для шляп)	built-in	встроенный
airbus	аэробус	capacity	вместимость, емкость,
big	большой	объем	

carry	- перевозить	loading	погрузка, загрузка
carry-on luggage	находящийся на борту багаж, ручной багаж	long	длинный
container	контейнер, отсек	low	низкий
cruising speed	крейсерская скорость	lower deck hold	- нижнепалубный отсек
deck	палуба, кабина экипажа	mechanized	механизированный
design	конструкция	modification	вариант, модификация
disembark	высаживать пассажиров	move	двигаться, перемещаться
disembarkation	высадка пассажиров	movement	движение, перемещение
door	дверь	old	старый
each	каждый	only	всего лишь, только
early	ранний; рано	over	более
embark	производить посадку (пассажиров)	overhead	наверху, над "головой"
embarkation	посадка пассажиров	pallet	поддон
fast	быстрый	payload	коммерческая нагрузка
fuel consumption	расход топлива (потребление)	per hour	в час
fully	полностью	powerful	мощный
galley	кухня (на борту)	quiet	тихий, с малым уровнем шума
high	высокий	range	дальность (полета)
individual	индивидуальный	retractable	убирающийся (трап)
integral	встроенный	runway	ВПП
jetliner	реактивный самолет,	side	сторона
kerosene	керосин	special	специальный, особый
landing weight	посадочный вес	take off weight	взлетный вес
last	длиться, продолжаться; последний	tankage	емкость баков
late	поздний; поздно	ton	тонна
length	длина, протяженность	unload(ing)	разгружать (разгрузка)
liter	литр	upper deck	верхняя палуба (кабина)
load	груз; загружать	version	вариант, модификация
		weight	вес
		wide	широкий

## Read and discuss the texts:

### IL-86

IL-86 is a wide body aircraft. It can carry 350 passengers in 3 cabins. There are 2 decks: the upper deck and the lower deck. There are 3 passenger cabins and the cockpit on the upper deck.

There are 3 luggage compartments, 2 cargo holds, the galley and the technical area on the lower deck. There are 3 doors on the left side of the fuselage. There are built-in (integral) passenger stairways. There are aircraft controls and instruments in the cockpit. There are 3 members in the crew.

Its payload is 42.000 kg. Takeoff weight is 206.000 kg. Landing weight is 175.000 kg. Cruising speed is 900 — 950 km/h. Range is 3.600 km. Runway length is 2300 — 2600 m. Engines are turbofan — 4 NK-86.

### THE B-747

The Boeing 747 is one of the biggest jets. It can carry up to 490 passengers. There are 10 doors, 5 on each side. The carry-on luggage is in individual overhead compartments. Passenger luggage is in special containers.

It has special wing design and powerful engines. The passenger version of the B-747 can carry over 20 tons of cargo in its lower hold.

The cargo plane can carry 120 tons. Loading and unloading can last only 30 minutes by 3 men.

The movement of containers is fully mechanized.

### A-300 AIRBUS

It is one of the latest, quietest wide body jetliners. There are 2 engines under the wing on each side of the fuselage. It has low- fuel consumption. There are 4 overhead hat racks. It has takeoff weight of 142 tons, fuel capacity of 45 000 liters and fuel consumption of 7.100 liters per hour. Its cruising speed is 840 km/h. There are cargo pallets and containers.

#### 1. Answer the questions

1. How many passengers can IL-86 carry?
2. How many passenger cabins are there?
3. Where is the cockpit?
4. How many luggage compartments and cargo holds are there?
5. Where's the technical area?
6. Where are the doors?

7. What kind of stairways has IL-86?
8. How many members are there in its crew?
9. What is its payload?
10. How many engines are there?
11. How many passengers can B-747 take?
12. What wing design has it?
13. How many tons of cargo can a passenger version of B-747 carry?
14. Is there a cargo version?
15. How much time does it take to load and unload the aircraft?
16. What aircraft has low fuel consumption?

**2. Use comparisons:**

1. This is the latest (late) design.
2. We are going to open the door some minutes . . . (late).
3. This aircraft is landing 15 minutes . . . (early).
4. The fuel pressure is becoming . . . (low).
5. This aircraft can fly . . . (fast) and . . . (high).
6. This engine is . . .(powerful).
7. That runway is the . . . (old).
8. These engines are . . . (modem).
9. This aircraft is the . . . (modem) and expensive.
10. I can replace the wheel . . . (quick).
11. It is . . . (important) for you to learn English.
12. Which engine has the . . . (low) fuel consumption?

**3. Make the sentences interrogative:**

1. It is difficult to locate the trouble. — Is it difficult to . . . ?
2. It is necessary to drain the waste water.
3. It is possible to close the door.
4. It is possible to check the fuel pressure.
5. It is necessary to refuel the plane.
6. It is very easy to repair faulty units.
7. It is easy to write a technical report.
8. It is necessary to send us a tractor.
9. It is important to pump the tyres.
10. It is possible to replace the wheel quickly.
11. It is difficult to unlock the door.
12. It is necessary to wash the plane.

**4. Look at this: It's a fast plane. — That plane is faster.**

1. These cabins are wide.
2. Its body is long.
3. This plane flies high.
4. It has low fuel consumption.
5. The passenger cabins are large.
6. The payload is big.
7. Its instruments are good.
8. It can land on a short runway.
9. Its engines make little noise.
10. It has many engines.

11. It can take much cargo.
12. They load the aircraft in little time.
13. Its engines are powerful.
14. It has good fuel economy.
15. We need little maintenance.
16. It uses little aviation kerosene.
17. Its noise is low.
18. Its range is long.
19. It's a very expensive aircraft.

**5. Look at this: The plane is of late design. — The plane is of the latest design.**

1. This is a big jet.
2. This is a new plane.
3. It's an old runway.
4. This plane is important to carry freight.
5. These engines are powerful.
6. It's equipped with late instruments.
7. It's a good passenger plane.

8. This is an expensive plane.
9. It's a modern aircraft.
10. It has good fuel economy.
11. It's equipped with good instruments.
12. It's a very quiet jet.
13. Which jet is fast?
14. It has low fuel consumption.

**6. Use Passive Voice (Present Simple):**

1. I close the hatch. — The hatch is closed.
2. I inspect the oil filter.
3. We repair faulty equipment.
4. I write a technical report.
5. We refuel the plane.
6. They fill the tanks.
7. I open the drain cock.
8. I inspect the oil pressure.
9. She cleans the toilets.

10. I close the drain cock.
11. They send spare parts.
12. I change the brakes.
13. We switch on the lights.
14. They drain the toilet waste water.
15. We do much work in flight.
16. We make an inspection of main parts.

**7. Use Passive Voice (Past Simple):**

1. *I closed the hatch. — The hatch was closed.*
2. They drained waste Water.
3. He inserted the chocks.
4. He inspected the grade of fuel.
5. He started up the engines.
6. He dosed the cap.

7. He wrote the report.
8. They repaired the engine.
9. He filled the wash basin tank with water.
10. I gave him my tool kit.
11. We checked the tyres.
12. They sent us I tractor.



13. We extinguished the fire in the cargo hold.

14. I located the faulty unit.  
15. I used these instruments.

### 8. Use Passive Voice (with modal verbs):

1. *We must repair the gear. — The gear must be repaired.*
2. He must inflate the tyre.
3. We must fill the tanks.
4. He must change the wheel.
5. They must clean the toilets.
6. They must wash the plane.
7. She must dust the carpets.
8. He must wash the filter.
9. They must send a tow unit.
10. We must refuel the plane.
11. I must locate the faulty equipment.
12. I can repair the wheel.

13. He can inspect this system.
14. I can replace the wheel.
15. I can wash the filter.
16. We can repair (fix) the gear.
17. I can write a technical report.
18. They can do it for us.
19. They can send us spare parts.
20. He can give you the first copy.
21. He can shot down the engine.
22. I can't repair the brakes.
23. I can't fix the gear quickly.
24. I can't restart the engine.
25. They can't extinguish the fire.
26. I can't do it.

## GLOSSARY

### Learn the new special vocabulary:

service	обслуживать
exterior	внешний, наружный
interior	внутренний
heating	нагрев, подогрев
removal	удаление, уборка, устранение
fueling	заправка горючим (топливом)
defueling	откачка, слив топлива
replenish	снова наполнять, пополнять
replenishment	дозаправка
fluid	жидкость
preparation	подготовка
in-flight	полетный
protective equipment	защитное оборудование
post-flight	послеполетный
activity	деятельность, работа
arrange (for)	принимать меры, подготавливать
position	ставить, помещал»

engine cover	чехол двигателя
pitot cover	чехол приемника воздушного давления
control surface locks	стопор рулей
tailstand	хвостовая платформа, подставка
tether	(пртязать).ограничивать, ставить предел
supply	снабжение
fire-fighting	пожаротушение
push-back	буксировка хвостом вперед
towbar	буксировочное родило
move	двигаться; движение
perform	выполнять, совершать
wipe	протирать, вытирать
tidy	убирать, приводить в порядок
disinfect	дезинфицировать
deodorize	дезодорировать
flush	промывать
drinking water	питьевая вода
potable water	питьевая вода

snow снег  
ice лед  
without без  
de-icing удаление льда;  
противообледенительная защита  
liaison [li'eiz(ə)n] заправка  
fuel supplier топливозаправщик  
fueltruck топливозаправщик

appliance средство  
contamination загрязнение  
prepare готовить(ся)  
supervise руководить,  
контролировать  
deliver доставлять  
quantity количество

## **AIRCRAFT SERVICING (ICAO Manual)**

Exterior Cleaning  
Interior Cleaning  
Toilet Service  
Water Service

Cooling and Heating  
Snow and Ice Removal  
Cabin Equipment

## **FUEL AND OIL**

Fuelling or Defuelling

Replenishing of Oils and Fluids

## **AIRCRAFT MAINTENANCE**

Routine Services  
Flight Preparation  
In-flight Assistance

Marshalling  
Parking

## **RAMP**

Parking and Hangar Space  
Post-flight Activities

Starting  
Moving of a/t

- Provide/Arrange for . . at arrival or departure
- Remove/Position wheel chocks
- Position and remove:
  - landing gear locks
  - engine blanking covers
  - pitot covers
  - surface control locks
  - tail stands
  - tethering ['teðə]
  - operate ground power unit for supply if necessary
  - electrical power
- Provide flight deck step. Position and remove.

- Provide. Position and remove.
- Operate fire-fighting equipment (protective equipment).
- Provide. Position and remove tow-in or push-back equipment (towbar).
- Move aircraft under its own power.

### **AIRCRAFT SERVICING**

- Exterior Cleaning.
- Perform exterior cleaning on flight deck windows.
- Perform cleaning of aircraft integral steps.
- Wipe oil from engine nacelles and landing gear.
- Clean wings, controls, engine nacelles.
- Clean cabin windows.

### **INTERIOR CLEANING**

- Clean and tidy flight deck.
- Empty ash trays. (пепельница)
- Dispose of litter. (устранение мусора)
- Clear waste from seat back stowage and overhead racks.
- Wipe crew tables.
- Clean and tidy seats.
- Mop the floor. Clean the floor (carpets).
- Clean windscreen on inside.
- Clean and tidy crew compartments, lounges, bars, pantries, galleys, passenger cabins, toilets, cloakrooms, vestibules.
- Clean toilets, wash basins, bowls, seats.
- Wipe surfaces in galleys, pantries, sinks.
- Empty and clean refuse bins in pantry/galley.
- Clean floor covers.
- Clean cabin fixtures and fittings.
- Clean cargo holds/cabins.
- Fold and stow blankets.
- Make up berths.
- Change head rest covers.
- Mow covers.
- Distribute items in cabin, toilets.
- Disinfect and/or deodorize aircraft.

- Toilet Service.
- Provide, position, remove toilet servicing unit.
- Empty, clean, flush toilets and replenish fluids.

### **WATER SERVICE**

- Provide, position and remove water servicing unit.
- Replenish water tanks with drinking water.

### **COOLING AND HEATING**

- Provide, position and remove.
- Operate cooling unit/heating unit.

### **SNOW AND ICE REMOVAL**

- Remove snow from the aircraft without de-icing.
- Provide. Position and remove. Operate de-icing unit.

### **FUEL AND OIL**

- Fuelling and/or Defuelling.
- Liaise with fuel suppliers,
- Inspect fuel appliances for contamination of fuel.
- Prepare aircraft for fuelling/defuelling.
- Supervise fuelling/defuelling operations.
- Check the delivered fuel quantity.
- Drain water from aircraft fuel tanks.

### **REPLENISHING OF OILS AND FLUIDS**

- Liaise with suppliers.
- Supervise replenishing operations.
- Provide/operate special replenishing equipment.

## **TEST**

### **1. Use Passive Voice:**

- |  |                                   |
|--|-----------------------------------|
| 1. He does much work on the ground.          | 6. They send us spare pails.      |
| 2. They most make pre-flight checks.         | 7. He did much work in flight.    |
| 3. I must check the locks.                   | 8. We filled up the fuel tanks.   |
| 4. He wrote a technical report after flight. | 9. We use many tools.             |
| 5. He restarted the engine.                  | 10. We located the faulty easily. |

11. They cleaned the' plane.
12. They can load and unload the plane quickly.

## 2. Use Simple Past

1. We use many tools.
2. It takes an hour to inspect the plane.
3. He does much work in flight.
4. They go to the hangar every morning.
5. They send us the spares.
6. I close the doors.
7. Does it take much time to replace the wheel?

## 3. Make different types of questions:

1. They left an hour ago.
2. Loading took 30 minutes.
3. He is watching the engine instruments.
4. We located the faulty equipment.
5. She cleans and washes the plane.
6. He had to make some minor reports.

## 4. Use Comparisons:

1. Я вас не понимаю, говорите медленнее.
2. Пришлите стремянку повыше, я должен осмотреть двигатели.
3. У нас 5 членов экипажа, у них меньше членов экипажа.
4. Боинг-747 — один из крупнейших реактивных самолетов.
5. Нам нужно меньше технического обслуживания.
6. А-300 — один из самых бесшумных самолетов, у него самый низкий расход топлива.
7. Эти двигатели самые мощные.
8. Какая самая последняя конструкция крыла?
9. Это самый дорогой самолет:
10. Возможно ли прислать запчасти скорее?

13. They built a new aircraft.

8. Is it necessary to inflate the tyre?
9. Are they to land at Pulkovo?
10. We leave at 6 o'clock.
11. Do you take a tool kit?
12. He gives me some tools.
13. I can help you to replace the brake.
14. You must wash the filter.
15. They are to arrive at 10 o'clock.

7. It takes much time to check all units.
8. He wrote his technical report. —
9. B-747 is a four-engine jet aircraft.
10. It has built-in passenger stairway.
11. The engines have less noise.
12. It can land on a short runway.

11. Давление топлива становится ниже.
12. Трудно заменить колесо быстрее?
13. Это оборудование лучше и не такое дорогое.
14. Какой самолёт самый скоростной?
15. Он использует меньше топлива?
16. Шум двигателей ниже?
17. Мы отправляемся на 20 мин. позже.
18. Разгрузка заняла на 10 мин. меньше.
19. Я не мог обнаружить неисправность раньше.
20. Загрузка и разгрузка занимают не менее 2 часов.
21. У этого самолета дальность полетов самая большая.

22. Это самая высокая стремянка?

23. Это самая последняя модификация?

### TU-204

The TU-204 is designed as a short-range aircraft. It is a replacement for the TU-154 and TU-134.

It can carry 214 passengers. So the cabin modification is possible. Twelve containers can be carried underfloor. There are more modern flying control systems, which are easier to use.

Its cockpit is more modern in layout than the IL-96. The cockpit is designed for 3 men. It may be operated by 2 crew members.

Its wings are of more modern design. Its weight is not great. 3700 litres of fuel are carried in the fin. Its first flight was made in 1988.

Its range may be 6500 km. The power of its engines may be developed. Soloviev PS-90A engines may become more powerful.

The TU-204 does not approach the payload, and range of the D-757.

#### **The new special vocabulary:**

design      конструировать, рассчитывать, предназначать

short-range      с малой дальностью полета

long-range      с большой продолжительностью полета

medium-range      со средней дальностью полета

underfloor      нижняя поверхность фюзеляжа

layout      расположение, компоновка планировка

approach      приближаться; быть равным, похожим

easy      легкий, нетрудный; легко

develop      совершенствовать

become (became, become)      становиться

powerful      мощный

payload      полезная нагрузка

### MI-8

MI-8 began to fly in 1962. It is one of the oldest helicopters. There are two turboprop engines providing a cruising speed of 250 km/h. If necessary it can fly on one engine.

Its range is 600 up to 900 km.

There are the main and rear rotors, the tail boom, the tip boom, the cockpit, the cargo hold, the landing gear and the power plant.

There are three members in the crew. They sit in the cockpit.

The passenger version of MI-8 can carry 28 passengers; the cargo modification can carry 22 passengers. It can also carry 4 tons of freight in the fuselage and 3 tons of the external load.

Its takeoff weight is not more than 12 tons. There are 5 fuel tanks; 2 external fuel tanks and 2 extra fuel tanks in the fuselage and a fuel consumed tank. Its tankage is 4 400 liters.

There are retractable stairways, the first aid kit, an axe and a tool kit. We use a ground power unit to start up the engines and we can start up the engines using the storage batteries.

### **The new special vocabulary:**

fuel consumed tank	расходный топливный бак
tankage	емкость баков
storage battery	аккумуляторная батарея

### **1. Answer the following questions:**

1. When did MI-8 begin to fly?
2. How many engines are there?
3. What speed do the engines provide?
4. Can it fly on one engine?
5. How many crew members are there in the crew?
6. Where does it carry cargo?
7. How much cargo does it carry?
8. How many fuel tanks are there?
9. How much fuel is there in the tanks?
10. Do they use a GPU to start up the engines?
11. Are there retractable stairways?
12. Can the cargo modification carry passengers?
13. Can they use the storage batteries?
14. What are the main parts of the helicopter?
15. How many passengers can it carry?

## **TEST**

### **1. Pronounce –ed [t] [d] [id] correctly:**

talked worked used offered landed tested walked liked planned required divided provided equipped developed carried arranged loaded unloaded embarked stopped informed installed transported included checked finished lived covered invited accepted helped announced received contained rejected started washed placed married confirmed permitted presented replaced switched cancelled assigned operated needed

flushed leaked moved designed ended added fixed crashed allowed removed visited  
regarded locked chocked opened closed suggested assisted wiped shocked drained  
damaged constructed recorded commenced wanted ordered decided wanted  
disembarked changed

## 2. Translate:

летать — летал, начинать — начал, ставить — поставил/, использовать —  
использовал, становиться — стал, понимать — понял, ремонтировать —  
ремонтировал, готовить — подготовил, заменять — заменил, промывать —  
промыл, отправлять — отправил, обнаружить — обнаружил, закрывать —  
закрыл, покидать — покинул, отключать — отключил, иметь имел, убирать —  
убрал, делать — сделал.

## 3. Translate into English:

подогрев, охлаждение, уборка снега, заправка, слив, техническое обслуживание,  
запуск двигателей, прибытие, отправление, обеспечивать, топливозаправщик,  
загрязнение, доставлять, количество, внутренний, дозаправка, жидкость,  
подготовка, послеполетный, чехол двигателя, удаление льда, питьевая вода,  
промывать, ставить (помещать), послеполетный, хвостовая платформа,  
пожаротушение, буксировка хвостом вперед, приводить в порядок, вытирать,  
движение

## 4. Translate into Russian:

exterior, heating, preparation, fluid, de-icing, replenish, potable water, deciding,  
removal, flush, arrange (for), tidy, wipe, engine covet, perform, tailstand, tether, move,  
push-back, supply, towbar, ice, deliver, quantity, supervise, prepare, appliance,  
contamination, liaison, fuel truck

## UNIT 8

### Grammar

#### Simple Future

I think I will fly to India. (I'll fly)

He will be an engineer. (He'll be an engineer)

I will fly. Will I fly? I will not fly.

You will fly.

Will you land to repair the engine? — Yes, we shall.

— No, we shall not (we shan't)



Will he fly to London? — Yes, he will.

— No, he will not (he won't)

## Present Continuous for Planned Actions

**Use Present Continuous if actions are planned:**

We are flying to London in a week.

We are departing in 10 minutes.

**Remember.**

*Tomorrow, the day after tomorrow, next week, next month, next year, in a day, in a week, in a month, in a year, in an hour, in half an hour.*

I'll see you tomorrow.

## MODAL VERBS

Present	Past	Future
can	could	
am/is/are able to	was/were able to	shall/will be able to
must	-----	-----
have/has to	had to	shall/will have to
am/is/are to	was/were to	
may	might	-----
am/is/are allowed to	was/were allowed to	shall/will be allowed to

## Future Continuous

We'll be loading and unloading for 2 hours.

How long will you be refuelling? be + ing

## Future Simple Passive

The filter will be washed.

The ladder will be sent. will + be + II причастие

## Conversation Practice

**Learn the new vocabulary:**

accurately точно

adjustment регулирование, настройка,  
корректировка

airframe планер самолета

also также

bearing подшипник

bring (brought) доставлять, ставить

condition состояние

correct корректировать,

регулировать

crack	трещина; трескаться	operating	рабочий, действующий
dismantle	разбирать на части	other	другой
emergency	аварийный	overhaul	капитальный ремонт
every	каждый	perform	выполнять, исполнять
expert	эксперт, специалист,	piece	часть, деталь
знаток		preventive	профилактический
grease	смазка	quickly	быстро
keep	поддерживать	require	требовать
licence	разрешение, права,	required	необходимый
лицензия		responsible	ответственный
lubricant	смазка	routine	текущий, плановый
maintain	сохранять; проводить,	shop	мастерская, станция
техническое обслуживание		specialize	специализироваться
maintenance	техобслуживание (и	take apart	разбирать на части
ремонт); содержание в исправности		test	испытательный; испытание;
major repair	капитальный	испытывать	
(крупный) ремонт			
operate	работать, действовать		

## AIRCRAFT MAINTENANCE

Aircraft mechanics must keep aircraft in good operating condition. For this they will perform routine preventive maintenance and make repairs. They will make required inspections. They will change engine oil, grease, and wheel bearings. They will replace faulty units and make minor adjustments.

Some mechanics specialize in engine work. Planes will be brought to maintenance shops for major repairs and for inspections. Mechanics will take engines apart. They will check the pieces for work and replace bearings or other parts if needed.

Some mechanics work on airframes. They will check for cracks in the fuselage and wings. Others specialize in maintaining aircraft instruments. Aircraft mechanics will be able to make emergency repairs. They will, be able to locate and correct the faulty equipment. They will have to work quickly and accurately. They will use many tools. They will have to use test equipment to locate problems.

The mechanic will be responsible for maintenance, repair and overhaul. He must have a licence to perform aircraft repairs. He'll have to be expert in repairing, adjusting and overhauling every system on an aircraft.

### 1. Answer the following questions:

1. What is aircraft maintenance? '

2. How do mechanics specialize?
3. Where will they perform major repairs?
4. What will they have to do after they dismantle the engine?
5. What checks will they perform in the fuselage and wings?
6. What will they use to locate faults?
7. What will they be responsible for?
8. What document must they have to perform aircraft repairs?

## 2. Complete the sentences:

- |  |   |
|--|---|
| 1. <i>You'll land to repair the gear, won't you?</i> | 8. We'll depart in time, ...?             |
| 2. They'll send you spare parts, ..?                 | 9. You'll wash the filter, ..?            |
| 3. You'll watch the engine instruments, ...?         | 10. He shut down the engine, ...?         |
| 4. You're not going to replace the flap, ...?        | 11. You are writing a report, ...?        |
| 5. They flew to London yesterday, ...?               | 12. You'll replace the wheel, ?           |
| 6. Your captain speaks English, ...?                 | 13. They sent you a tractor, ...?         |
| 7. The gears are locked, ...?                        | 14. The tanks sure filled with fuel, ...? |

## 3. Use "won't":

1. *You'll call a mechanic. — You'll call a mechanic, won't you?*  
*Won't you call a mechanic?*
1. He'll write a report.
2. The unit will work properly.
3. They'll adjust the relief valve.
4. We'll land to refuel at Helsinki.
5. He'll insert the chocks.
6. The landing gear will lower. —
7. We'll get spare parts by 10.
8. You'll locate the fault quickly.
9. We'll call an Aeroflot representative.

## 4. Use Future:

1. *You must inspect the engines. — You'll have to inspect the engines.*
2. He must change the wheel.
3. You must perform routine preventive maintenance.
4. You must change the engine oil.
5. I must replace faulty equipment.
6. Mechanics must make emergency repairs.
7. They must work quickly and accurately.
8. I must locate the faulty unit.
9. We must test equipment.
10. Can I call a mechanic?
11. You can speak to the supervisor.

## 5. Answer the questions:

1. Do you need oil?
2. Will you drain the waste water?

3. Will they do their work well?
4. Are they experts?
5. Does he need a higher ladder?
6. When did you replace this unit?
7. Is there any problem with the engine?
8. Are they refueling the tanks with fuel?
9. How long are you unloading?
10. When will you depart?
11. Are you going to change the engine oil?
12. Where do they bring aircraft for major repairs?
13. What equipment do you use to locate faults?

#### 6. Make different types of questions:

1. He'll adjust the valve. —
2. They'll free the wing from snow. —
3. We'll land to repair the engine. —
4. I'll replace the faulty unit. —
5. Refuelling will be over in 20 minutes. —
6. They'll send spare parts in an hour.
7. The plane is arriving at 5. —
8. They are departing from Pulkovo in 20 min. —

#### 7. Use "to be going":

1. *They'll clean the plane. — They are going to clean the plane.*
2. He'll check the brakes. —
3. I'll repair the brakes. —
4. He'll write a technical report. —
5. They'll refuel the plane. —
6. I'll replace the wheels. —
7. The mechanic will inspect the main parts; —
8. I'll check the engine instruments. —

#### 8. Use Future:

1. Do you fly much?—
2. Does he learn English? —
3. Do they send spare parts? —
4. Is he a good specialist? —
5. Can you repair engines? —
6. Are the tanks filled? —
7. You have no problems. —
8. Do you locate faults quickly? —
9. Is your work difficult? —
10. Does it take much time to refuel? —
11. Refuelling doesn't take much time. —
12. Are these mechanics experts? —
13. Is the oil drained? —
14. Must you replace this unit? —
15. They position the chocks. —
16. Can you locate the defects quickly? —
17. Can you correct the faulty unit?

#### 9. Use Future Passive:

*Example: She'll clean the plane. — The plane will be cleaned.*

1. We'll refuel the tanks. —
2. They'll send us a tractor. —
3. They'll load and unload the aircraft in 2 hours. —

4. I'll write a technical report. —
5. I'll lower the flaps. —
6. We'll use the brakes. —
7. He'll repair the gear. —
8. I'll retract the landing gear. —
9. They will wash the plane. —
10. They'll have to make minor repairs in flight: —
11. We'll bring the plane to the maintenance shop. —
12. They will make emergency repairs in the air. —
13. I'll use test equipment to locate faults. —
14. These experts will make required inspections. —

## Glossary

### Learn the new vocabulary:

perform	выполнять	reveal	обнаруживать
enter	вписывать, вносить, записывать	irregularity	нарушение
log	бортовой журнал	manual	руководство
sign	подписывать(ся)	handbook	справочник, руководство
performance	исполнение, выполнение	engineering facilities	инженерно-технические сооружения и службы;
remark	замечание		средства
defect	неисправность	search	производить поиск, искать, обыскивать
observe	замечать		
rectify	исправлял, (недостатки), устранять		

### AIRCRAFT MAINTENANCE (ICAO Manual)

- Perform inspection.
- Enter in the aircraft log and sign for the performance of inspection.
- Enter remarks in the aircraft log (defects observed during the inspection).
- Perform pre-flight check before aircraft departure.
- Rectify defects entered in the aircraft log as revealed during inspection.
- Enter in the aircraft log and sign for the action Men.
- Report technical irregularities and actions taken.
- Maintain the technical manuals and handbooks.
- Provide engineering facilities, tools and special equipment.

## 1. Translate into Russian:

1. The doors of parked aircraft must be closed and locked, and any steps must be removed.
2. Aircraft interiors must be searched before the boarding of passengers and after disembarkation.
3. We will perform inspection and enter remarks in the aircraft log.
4. I'll enter all observed defects in the aircraft log.
5. I'll rectify the defects revealed in the inspection.
6. You'll be provided spare parts and power plants.
7. We'll report technical irregularities and actions taken.
8. Pre-flight check will be performed before aircraft departure
9. Tools will be provided for aircraft maintenance.
10. They will provide engineering facilities.
11. Inspection of all main parts must be performed.
12. Observed defects must be entered in the log.
13. All defects must be rectified.
14. Spares must be provided if necessary.
15. Some actions must be taken to rectify defects.

## TEST

### 1. Use Future:

1. We take some actions to rectify defects.
2. He must change engine oil, grease and wheel bearings.
3. They bring the aircraft to the maintenance shop.
4. I'm checking the fuselage for cracks.
5. He performs pre-flight check before departure.
6. Aircraft mechanics make emergency repairs.
7. He must correct the faulty equipment.
8. Do you use test equipment to locate faults?
9. The observed defects are entered in the aircraft log.
10. He has to adjust and overhaul all units of the aircraft.
11. We're provided tools for aircraft maintenance.
12. Can you rectify the revealed defects?
13. I must report any technical irregularities and actions taken.
14. Are the aircraft searched before embarkation and disembarkation?
15. Must you enter the observed defects in the aircraft log?
16. Chocks are positioned.
17. He closes and locks the aircraft doors.
18. He's removing the steps.
19. Some actions are taken to rectify defects.

20. They have to provide tools for aircraft maintenance.

## 2. Make questions:

1. He will arrive in an hour.
2. The engine will be repaired in 2 hours.
3. They will leave at 6.
4. Refueling will last 20 minutes.
5. We'll have to wait for 30 minutes.
6. They'll be flying to London for 3 hours.

## 3. Translate into English:

1. Как долго вы собираетесь выполнять осмотр?
2. Почему он вызывает механика?
3. Они пришлют баллон кислорода.
4. Когда придет их рейс?
5. Вы замените этот агрегат?
6. У вас будет много работы в полете?
7. Сколько рейсов они будут выполнять?
8. На каком самолете он будет летать?
9. Вы будете ждать механика?
10. Когда вы начнете заправку?
11. Вы проверите тормоза?
12. Как долго они будут ремонтировать колесо?
13. Когда вы отправите запчасти?
14. Он будет летать на вертолете?
15. Как долго нам ждать вашего механика?

## 4. Use Passive:

1. Mechanics keep aircraft in good operating condition.
2. He made some minor repairs in this flight.

21. Engineering facilities are provided.

7. Spare parts will be sent in some minutes.
8. They will arrive on Sunday.
9. He will write a technical report after flight.
10. They are going to fly to Helsinki.
11. We'll land to repair the engine.

16. Вы определите место неисправности?
17. Когда начнется посадка пассажиров на ваш рейс?
18. Он сможет отремонтировать двигатель?
19. Вам придется заменить это оборудование?
20. Он сможет определить неисправность быстро?
21. Когда этот рейс придет в Пулково?
22. Вы промоете фильтр?
23. Вы сможете устранить эти неисправности?
24. Вам придется прислать нам руководство.
25. Я должен буду записать все замечания о неисправностях в боржурнал.

3. He changed engine oil.
4. I'll change the grease.
5. They'll bring the aircraft to the hangar.

6. Mechanics may take the engine apart.
7. He will replace bearings.
8. They must check the fuselage for cracks.
9. He'll locate the faulty equipment.
10. We use many tools and test equipment.
11. He adjusted the brakes.
12. They performed inspection after landing.
13. You must enter all defects in the log.
14. The engineer will report any technical irregularities.
15. He will take some actions to remove the wheel.
16. The mechanic will rectify the faults and malfunctioning.
- 17.1 wrote the technical report after flight.
18. They sent us a handbook.

### 5. Change Present to Past and Future:

1. The engineer can reveal defects and irregularities.
2. He must position the chocks.
3. They must maintain the technical manuals.
4. He can reveal any defects during inspection.
5. Mechanics must rectify defects.
6. They can provide engineering facilities and tools.
7. I must report any technical irregularities.
8. We can take some actions if necessary.
9. He must perform pre-flight checks before departure.
10. I must enter all remarks and changes in the log.

### 6. Write synonyms:

perform inspection —

defects —

observe defects —

rectify defects —

lubricant —

major repair —

a good specialist

perform maintenance

if needed —

### 7. Translate:

rectify defects, observe defects during inspection, take actions, sign for the action taken, perform inspection, report technical irregularities, reveal defects during inspection, enter remarks in the log, sign for the performance of inspection, correct faulty units, locate faults.

## UNIT 9

### Grammar

#### Present Perfect Active

I have done this work I have not done this work Have you done this work?



Have you worked for 10 years? — Yes, I have.

Have you done this work? — No, I haven't.

**REMEMBER!**

*Already just never ever not yet before since for*

We've already checked this unit. We haven't checked this unit yet.

Have you repaired the engine yet? — Yes, we have. — No, we haven't.

We haven't yet refuelled. Have you refuelled yet? — Yes, we have.

I've flown for 15 years. — How long have you flown?

I've worked here since 1970. — Have you worked here since 1980?

I think we've met before. — Have we met before? Where have we met?

How long have you flown? — I've flown for 15 years.

How long have you had your car? — We've had our car for a year.

How long have you been here? — I've been here for a month.

**REMEMBER: в вопросах с "when" - Simple Past:**

When did you fly to London? — I flew to London a year ago.

When were you in London? — I was there last year.

**Present Perfect Passive**

**HAVE (HAS) + BEEN + Participle II (V3)**

<b>Active</b>	<b>Passive</b>
He has checked this unit.	This unit has been checked.
We have replaced the wheels.	The wheels have been replaced.
They've done much work.	Much work has been done.

**Present Perfect Continuous**

**HAVE + BEEN + Participle II (VING)**

We have been repairing the engine for 2 hours.

How long have you been flying? — I've been flying for 15 years.

**BUT: (группа глаголов чувственного восприятия)**

I've known him for many years.

Have you understood me?

He's been to London.

Have you seen this plane?

## CONVERSATION PRACTICE

### 1. Read and discuss the text:

#### A FLIGHT ENGINEER

Let me introduce my friend John to you. I've known him for 10 years. He's a flight engineer. He has flown for 15 years. He has just come back from his work. He has worked in the air and on the ground. Before the flight he has made an inspection of the plane. He has checked all equipment on board. He has observed the instruments in flight. He has handled the controls for the landing gear. After flight he has written his technical report and briefed the station engineer. He has inspected the plane after flight.

### 1. Answer the questions:

1. How long have you known your friend?
2. What does he do?
3. How long has he flown?
4. Where has he come from his work?
5. Where has he worked?
6. What has he done in flight?
7. What has he done before the flight?
8. What has he written?
9. Whom has he briefed?

### 2. Use Present Perfect

1. *He wrote his report. — He has written his report.*
2. He gave me a tool kit.
3. I understood him well.
4. I saw B-757.
5. He left the log book in the plane.
6. They did the work well.
7. We had some problems in flight.
8. He made an inspection of the equipment.
9. I located the faulty unit.
10. Loading began.
11. He didn't repair the engine.
12. He was in London.

### 3. Make questions with "when":

1. *He has just repaired the valve. — When did he repair the valve?*
2. I have located the failure.
3. He has made an inspection of the plane.
4. We've used this device.
5. He has checked the oil temperature.
6. We've flown a helicopter.
7. They have removed snow from the wings.
8. Passengers have left the plane.
9. The mechanic has done his Work.
10. They have sent us spare parts.

### 4. Make questions with "how long":

1. *He has been flying for 15 years.*  
— *How long has he been flying?*
2. We have been studying here for a month.
3. I have been learning English for some weeks.
4. They have been working for Delta for 20 years.
5. We have been using this device for 10 years.

6. He has been maintaining the helicopter for 15 years.
7. I have been doing this work for many years.
8. We have been waiting for the mechanic for some time.
9. He has been repairing the engine for 2 hours.
10. I have been watching the engine instruments for some hours.
11. I have been flying for 20 years.

### 5. Translate into English:

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Вы слили систему?</li> <li>2. Стартер отказал?</li> <li>3. Вы убрали в самолете?</li> <li>4. Вы удалили снег с крыла?</li> <li>5. Вы осмотрели двигатели?</li> <li>6. Вы заменили колесо?</li> <li>7. Вы вызывали механика?</li> <li>8. Вы опустили трап?</li> <li>9. Вы убрали колодки?</li> <li>10. Загрузка заняла много времени?</li> <li>11. Он уже проверил тормоза?</li> <li>12. Вы отправили стремянку?</li> <li>13. Он заменил фильтр?</li> <li>14. Вы начали загрузку?</li> </ol> | <ol style="list-style-type: none"> <li>15. Вы отсоединили заправочные шланги?</li> <li>16. У вас были трудности в полете?</li> <li>17. Вы уже доложили о неисправности насоса?</li> <li>18. Он промыл фильтр?</li> <li>19. Вы открыли люк?</li> <li>20. Вы заменили масло?</li> <li>21. Он отрегулировал датчики?</li> <li>22. Вы устранили все обнаруженные дефекты?</li> <li>23. Он проверил топливный насос?</li> </ol> |
|---|--|

### 6. Answer the questions:

1. How long have you been living here?
2. How long have you been working for Aeroflot?
3. How long have you been writing your report?
4. How long have you been watching the instruments?
5. How long have you been testing this engine?
6. How long has he been repairing the brakes?
7. How long has the mechanic been replacing the valve?
8. How long have you been maintaining the plane?
9. How long have you been waiting for the mechanic?
10. How long have you been unloading the plane?
11. How long have you known your captain?

### 7. Give the synonyms:

to work —	trouble —	inflate —
undercarriage —	air stairs —	plane —
to locate faults —	assist —	cargo —
empennage —	latch —	baggage —
to correct —	port engine —	
snag —	vest —	

### 8. Give the antonyms:

connect —	load —	heating —
embark —	lock —	slow —
maximum —	port engine —	able —
major repair —	forward —	outside —
high —	retract —	overwing —
icing —	defueling —	function —

### 9. Use Present Perfect Passive: have been + Participle II

*Example: They have cleaned the plane. — The plane has been cleaned.*

1. He has briefed the station engineer.
2. The mechanic has changed the valve.
3. They have replaced the wheel.
4. They have carried much cargo.
5. The captain has taken these documents.
6. The mechanic has washed the filter.
7. He has inserted the chocks.
8. He has tested the brakes.
9. They have designed a new engine.

## GLOSSARY

### ICAO Manual. Aircraft Servicing Equipment

#### Learn the new vocabulary:

vehicle	перевозочное средство	tractor (aircraft tow tractor)
truck	тележка, грузовой	буксировочное водило
автомобиля		tug (tugtractor) тягач, буксировщик
fuel tanker	топливозаправщик	de-icer
tow	буксир; буксировать	противообледенитель
power push	тягач, буксировщик	refill
tow bar	тягач, буксировщик	дозаправка; дозаправлять
		container
		бак, резервуар

ground power unit      аэродромный  
пусковой агрегат (АПА)  
refueler (fuelling service; fuelling truck)  
топливозаправщик  
air start unit      аэродромная  
установка для запуска (двигателей)

toilet vehicle (lavatory vehicle)  
ассенизатор  
drinking water (potable water)  
питьевая вода  
servicing equipment  
вспомогательное оборудование,  
средства для обслуживания, техника

Refill containers with hot and/or cold drinking water.

Anti-icing is the use of fluids on a clean aircraft to prevent snow, ice or frost from its surfaces.

Anti-icing fluid applied to a clean aircraft may protect from snow, ice or frost.

De-icing is the use of heated water or mixtures to remove snow, ice, frost.

Apply anti-icing fluid after de-icing as preventive measure.

### **GROUND HANDLING SERVICES**

Prepare      подготовить  
forward      отправлять, пересылать  
file      представлять, регистрировать  
disbursement      оплата  
charge      цена, расходы  
airwaybill (*loadsheet*)      накладная  
connect      связывать

Prepare, forward and file reports /  
documents.  
Maintain the manuals connected with  
services.  
Prepare airwaybill.  
Ground Handling Cargo  
(Disbursements).

### **GROUND SERVICING POINTS LOCATION**

point      точка  
forward      передний  
aft      задний, хвостовой, в хвостовой  
части

location      расположение,  
размещение  
receive      получать  
irregularity      нарушение нормы

### **SYSTEMS**

Air Conditioning. Electrical. Fuel. Potable water.

Lavatory (Forward, center, aft).

Refill containers with hot and / or, cold drinking water.

Receive briefing and give information about irregularities and changes.

## **TEST**

### **1. Use Present Perfect Continuous:**

1. I . . . (fly) for 15 years.

2. We . . . (watt) for spares for an hour:
3. He . . . (replace) the wheel
4. We . . . (refuel) for 20 minutes.
5. He . . . (inspect) all the equipment for some 15 minutes.
6. He . . . (repair) the valve for 10 minutes.
7. He . . . (write) his technical report for some time.
8. They . . . (refill) containers with drinking water for some 20 minutes.
9. He . . . (prepare and file) documents for half an hour.

## 2. Use "when" in your questions:

1. Has he taken the tool kit?
2. Have you given him the loadsheet? *сводная загрузочная ведомость*
3. Have you done this work?
4. Have you spoken to their specialist?
5. Have you cut off the port engine?
6. Have they refilled these containers?
7. Has he written his technical report?
8. Have they sent you the ladder?
9. Has the crew left the plane?
10. Have you been to London?
11. Have you had a car?
12. Has he made an inspection of the plane?
13. Have you had any problems in flight?
14. Have you shown him the certificate for fuel?

## 3. Look at this: Insert the chocks. — I've inserted the chocks.

### Now you do this:

1. Prepare the airwaybill.
2. File the documents.
3. Cool the brakes.
4. Begin refueling from overwing.
5. Close the filter cap.
6. Take the certificate for fuel.
7. Check fuel tank drains for water.
8. Show him the loadsheet.
9. Leave the plane.
10. Replace the nose wheel.
11. Refill the containers with water.
12. Send us the toilet vehicle.
13. Give them information about changes.
14. Connect the fuel hose.
15. Do it for them.
16. Speak to the captain.
17. Cut off the engine.
18. Write the report.
19. Make an inspection
20. Fly to London.
21. Meet the crew.
22. Call their engineer.

## 4. Use Present Perfect Passive:

1. They have cleaned the plane.
2. He has prepared the airwaybill. *авианакладная*

3. I've filed the documents.
4. He has cooled the brakes.
5. They have begun refueling from overwing.
6. He's closed the filter cap.
7. I've taken the certificate for fuel.
8. We've checked fuel tank drains for water.
9. The passengers have left their baggage in the baggage holds.

10. We've replaced the nose wheel.
11. He's refilled the containers with hot and cold water.
12. They have sent us the toilet vehicle.
13. He has disconnected the fuel hose.
14. He has given them information about changes and irregularities.

### 5. Make questions:

1. They sent us some special equipment.
2. The mechanic has just performed pre-flight check.
3. The engineer has revealed some defects during inspection.
4. The crew of mechanics has rectified all defects.
5. Pre-flight check was performed 10 minutes ago.
6. Some defects have been observed in the tests.

7. He has entered his remarks in the log.
8. We have been provided some tools necessary for repair.
9. Some technical irregularities were reported.
10. The mechanic has changed the wheel bearings.
11. They flew to Helsinki last week.
12. He has flown for 15 years.

### 6. Use Simple Past or Present Perfect:

1. . . . you (fly) to London?
2. When . . . you (fly) to London?
3. . . . you (have) any faults?
4. When . . . you (have) the engine trouble?
5. . . . you ever (land) at Helsinki?
6. When . . . you (land) at Helsinki?
7. . . . he (locate) the faulty unit?
8. When . . . he (locate) the fault?
9. How much time . . . you (fly)?
10. When . . . you (land)?
11. . . . you (damage) the gear?

12. When you (damage) the gear?
13. . . . they (send) you any spares?
14. What spare parts . . . they (send) you?
15. . . . you (open) the rear door?
16. When . . . you (open) the rear door?
17. He just (open) the door.
19. The engineer . . . already (make) the inspection.
20. When . . . he (make) the pre-flight check?

### 7. Put the Past Tense and Participle II:

Speak — fly - find — cut off — take — be — make — have — do — send — leave —  
begin — go - become — show — set — give — see — meet — write — think —  
know — come — understand — build — lose —

## UNIT 10

### Phonetics, Silent Letters

Could would should calm walk talk half listen write  
Wrong know knock daughter height eight light night sight  
Weight weigh thought bought guide hour climb fasten sign  
Design high flight wrench tightness

### Grammar

#### 1. Should — должен, следует

You should inspect this unit. — Вам следует проверить этот агрегат.  
This unit should be inspected. — Этот агрегат должен быть проверен

#### 2. Would, will — выражает вежливую просьбу

Will you help me to replace the wheel? — Вы можете мне заменить колесо?  
Would you help me? — Вы можете мне?

#### 3. When, as soon as, before, after, while, if — Придаточные обстоятельственные времени или условия

If there is a failure, I'll have to locate it. — Если будет отказ, ..  
If the engine fails, I'll repair it. — Если двигатель откажет, . . .  
(вместо Future используется Present Simple)

#### 4. Participle I (-ing) имеет следующие функции; определение, обстоятельство, используется для образования Continuous:

He is inspecting the main parts of the plane now. (проверяет)  
I see the refueler moving to the plane, (движущегося)  
They use ladders while working on wings, (работая)

#### 5. Participle II (-ed; 3 форма непр, гл.) имеет следующие функции: определение, обстоятельство, используется для образования Perfect Tenses и Passive Voice:

I have inspected the main parts of the plane, (осмотрел)



The engine is inspected, (осмотрен, проверен).

Remove the burst tyre. Repair the failed unit, (отказавший)

Used properly this unit will operate long, (использованный)

**6. Gerund (-ing) имеет следующие функции: подлежащее, дополнение, часть сказуемого, определение, обстоятельство:**

Loading and unloading don't take much time, (загрузка, разгрузка)

Stop refueling. Start unloading. He had a snag on loading.

What is its cruising speed? His duty is testing engines.

This is the loading latch. Refueling is over.

**7. Infinitive имеет следующие функции: подлежащее, дополнение, определение, обстоятельство, часть сказуемого:**

To remove this wheel is necessary. We need to refill the water containers.

This is the unit to test. Send us a ladder to inspect the tail unit.

We are to replace the brakes.

## CONVERSATION PRACTICE

**Read the text and discuss it:**

### AIRCRAFT MAINTENANCE

The engine should be dismantled from the aircraft when it has run for about 1200 hours. The parts should be cleaned, some parts should be boiled in a cleaning solution and others should be washed in kerosene. When the parts are clean; they should go to the inspection department, where every part should be inspected. Steel parts should be magnafluxed to find small cracks. Damaged or badly worn parts should be replaced. Different parts of the engine should be repaired.

**Learn the new vocabulary:**

boil кипятить

cleaning solution промывочная жидкость

department цех, отдел

dismount снимать, разбирать, демонтировать

flux обрабатывать флюсом

ground running гонка двигателя на земле, работа двигателя на земле

kerosene керосин

magnaflux - порошковая магнитная дефектоскопия

run работать; работа, гонка (двигателей)

solution    раствор  
 steel    сталь; стальной  
 wear (wore, worn)    изнашивать(ся)  
 wipe    изношенный  
 worn    очищать, стирать

### 1. Use "should":

1. *Locate the faulty unit. — You should locate the faulty unit.*
2. Inspect the engines. —
3. Check the units for damage, cracks. —
4. Watch the engine instruments. —
5. Cut off the engine.—
6. Test the equipment for leaks. —
7. Remove the landing gear. —
8. Replace the empennage. —
9. Drain oil system. —
10. Service drinking and washing water systems. —

### 2. Use Passive Voice:

1. *He should dismount the engine from the plane. — The engine should be dismounted.*
2. They should clean the engine parts.
3. He should boil some engine parts in a cleaning solution.
4. I should wash some parts in kerosene.
5. He should take the parts to the inspection department.
6. They should inspect all parts.
7. He should replace damaged parts.
8. They should repair some parts.
9. He should locate faulty equipment.
10. Should I call a mechanic?

### 3. Use Present instead of Future:

1. The engineer will inform the maintenance when he . . . (locate) any faults.
2. We'll remove this unit if there . . . (be) any cracks.
3. Mechanics will have to repair equipment if it . . . (fail).
4. If oil . . . (leak). I'll have to replace the duct.
5. If the engine . . . (stop), the engineer will have to restart it.
6. The supervisor will tell you when the refuelling . . . (be) over.
7. It'll take much time to inspect all equipment before he . . . (locate) the fault.
8. I'll inform you as soon as their mechanic . . . (come).

#### 4. Write Participle I and Participle II:

adjust — damage — begin — run — load — restart — become — see — regulate — design — grow — shut — locate — break — bring — teach — inspect — write — cut — wear — repair — find — do — leave — replace — take — fly - forget — refuel — give — lose — be — lower — speak — make — go —

#### 5. Make questions:

1. You need refuelling, don't you?
2. You fly on MI-8, ... ?
3. You speak English, ... ?
4. Your crew will fly to Helsinki, ... ?
5. You've lived here for a month, ... ?
6. You flew to London last year, ... ?
7. She is a crew member, ... ?
8. You're not going to replace the engine, ... ?
9. You can't locate the faulty unit, ... ?
10. He doesn't fly by IL-86, ... ?
11. He wasn't in Moscow last month, ... ?
12. These planes are modern, ... ?
13. He can drive a car, ... ?
14. You won't replace the pump, ... ?
15. They're unable to locate the defect, ... ?
16. You've been flying for 20 years, ... ?
17. He spoke to the station engineer, ... ?
18. This engine has run for about 1000 hours, ... ?

#### 6. Translate into Russian:

1. The captain ordered to shut down the failed engine.
2. It took an hour to replace the engine.
3. His duty is to repair engines.
4. We need the water vehicle to refuel water containers.
5. The aircraft is taken to the maintenance shop to be inspected and repaired.
6. He uses the test equipment to check units.
7. Send us a specialist to locate the problem.
8. The specialist must have a license to perform aircraft repairs.
9. The function of the tail unit is to provide stability.
10. The engine is dismantled to be cleaned.
11. They take the engine apart to find cracks and faults.

12. This is the filter to be washed.
13. Send us a GPU to start up.
14. We sent you a tractor to taxi you out.
15. This is the tractor to be used to taxi you out.

**7. Use prepositions where necessary:**

1. The crew is . . . the cockpit.
2. Would you like to speak . . . your representative?'
3. Have you ever been . . . the inspection department?
4. Will you fill the tanks . . . cold water?
5. The mechanic is . . . the ladder inspecting the tail.
6. We're waiting . . . the ladder.
7. B-747 is one . . . the biggest jets.
8. A-300 airbus has 2 engines . . . the wing . . . each side . . . the fuselage.
9. Wipe oil . . . engine nacelles and landing gear.
10. Prepare aircraft . . . fuelling.
11. Drain water ... aircraft fuel tanks.
12. Check fuel drains . . . water.
13. Mechanics do much work . . . the ground and . . . the air.
14. I write my technical report . . . flight.
15. The aircraft can be loaded and unloaded . . . 2 hours.
16. Remove snow . . . the aircraft.
17. We need . . . 20 tons . . . fuel.
18. I watch . . . the engine instruments . . . flight.

**Glossary. Basic Tools**

**Learn the new special vocabulary:**

basic	основной	a set of chisels	набор стамесок
pliers	плоскогубцы	cutting tools	резцы
screw-drivers	отвертки	lock and key	замок и ключ
hacksaw	ножовка	snips	ножницы (для металла,
selection of files	набор	проволока	
напильников		set of spanners	набор гаечных
set of drills	набор дрелей	ключей	
set of punches	набор пробойников	set of wrenches	набор гаечных
hammer	МОЛОТОК	ключей	

**Remember:**

fill — refill  
start up — restart  
able — enable  
load — naload  
mount — dismount  
mantle — dismantle  
embark — disembark  
connect — disconnect  
speed — overspeeding  
heating — overheating

regularity — irregularity  
fueling — refueling  
equip — reequip  
plane — deplane  
fueling — defuelling  
icing — deicing  
pressurization — depressurization  
compression — decompression  
stability — instability

## TEST

### 1. Translate into English:

1. Нам следует осмотреть отказавший двигатель.
2. Нам нужна дозаправка.
3. Давайте начинать дозаправку.
4. Прекратите заправку.
5. Дозаправка закончена.
6. Мы вызовем группу специалистов, если не установим дефект.
7. Как только я обнаружу изношенные детали, я должен заменить их.
8. Когда двигатель отработает 1200 часов, его следует снять и разобрать.
9. Мы будем выполнять обычное техобслуживание, как только прибудет топливозаправщик.
10. Я должен проинформировать командира, если обнаружу любую техническую неисправность.
11. Если командир прикажет, мне придется отключить отказавший  
1. двигатель.
12. Двигатель будет отключен, как только командир прикажет.
13. Мы проинформируем службу техобслуживания, если обнаружим какую-либо неисправность.
14. Необходимо снять лопнувшую шину.
15. Пришлите стремянку для осмотра крыльев.
16. Нам нужна вода для охлаждения колес.
17. Неисправный двигатель был отключен.
18. Предъявите паспорт на топливо.
19. Трещины не было обнаружено.
20. На стоянках много самолетов, производящих посадку и выгрузку пассажиров.

21. Когда двигатель снимут, его промывают керосином.

## **2. Answer the questions:**

1. How many are you in your crew?
2. Is there a navigator in your crew?
3. What spare parts have you on board?
4. How many years have you flown?
5. Why are you going to replace the engine?
6. Why have you called their mechanic?
7. How much fuel do you need?
8. What faulty equipment have you located?
9. Where have you located the crack?
10. How much time will it take you to replace the damaged wires?
11. What failures may you have In flight?
12. Have you had any faults in flights?
13. Who shuts down a failed engine?
14. Is it necessary to fill the tanks with hot or cold water?
15. Whom are you waiting for?
16. What assistance do you need?
17. Who calculates the fuel consumption?
18. How much fuel do you need for flight?

## **3. Translate:**

1. We should repair different parts of the engine.
2. I should find and replace badly worn parts.
3. We should dismount the failed engine.
4. I should clean these parts.
5. We should replace damaged parts.
6. These parts should be washed, they should be clean.
7. Why should they go to the inspection department?
8. Small cracks should be located.
9. The mechanic should inspect every part.
10. You should use the ladder.
11. We should regulate the pressure.
12. I should change the grease.

## **4. Change to Passive:**

1. We should change the grease.

2. We should regulate the pressure.
3. You should use the ladder.
4. He should inspect every part.
5. You should wash these parts.
6. They should replace the damaged parts.
7. He should clean these parts.
8. We should dismantle the worn engine.
9. We should find the worn parts.
10. We should replace badly worn parts.

## **UNIT 11**

**Read the text and discuss it:**

### **THE DUTIES OF MAINTENANCE TECHNICIAN. (ICAO Manual)**

The duties of aircraft maintenance technician are: day-to-day (routine) servicing and maintenance of aircraft, determination and repair of faults\* maintaining or overhauling aircraft and components.

Aircraft maintenance technicians are: aircraft maintenance engineers, aircraft maintenance mechanics, aircraft radio engineers/mechanics and many other kinds of aircraft maintenance personnel (electrical, instruments specialists).

They service, maintain or overhaul aircraft, airframes, aircraft power plants, aircraft systems, aircraft instruments, and aircraft avionics.

### **JOB OF THE AIRCRAFT TECHNICIAN**

Art aircraft engineer/mechanic inspects, repairs and services aircraft airframe, engines, equipment, instruments, radio, using tools.

They check condition of aircraft parts: wings, tail, fuselage and landing gear.

They inspect the skin, the condition of landing gear parts. They test tightness of connections, check correct fitting of parts, they operate controls and examine other parts and determine if adjustment, repair or replacement is necessary. They tighten loose screws, bolts, nuts and fittings, and adjust control devices.

They repair cracks or tears in skin covering. They repair landing gear parts, install wheel bearings, repair tires, replace damaged springs and hydraulic cylinders and repair struts.

They repair ribs, spars, stringers in wing, tail, fuselage, they remove the damaged part, and they assemble complete units such as landing gear, tail or wings.

They service aircraft: inflate tires, fill fuel tanks and oil reservoirs, lubricate fittings, correct fluid level in shock strut of landing gear; they clean mechanical parts with compressed air and cleaning fluid. They replace lights and faulty wiring, clean off engines.

They use ladders or platforms while working on wings or fuselages.

They may have to wear protective devices (goggles or ear muffs).

Besides routine servicing, minor repairs and replacements they may have to install engines, instruments and equipment.

### Learn the new words

adjustment регулировка  
 aircraft maintenance technician  
     авиатехник  
 assemble монтировать; сборка,  
 установка  
 avionics БРЭО, электронное  
 оборудование  
 besides кроме  
 clean off прочищать  
 cleaning fluid специальная  
 жидкость, промывочная жидкость  
 complete полный  
 compressed air сжатый воздух  
 condition состояние  
 connect соединять  
 connection соединение  
 control devices органы управления  
 correct корректировать,  
 исправлять  
 day-to-day servicing повседневный  
 уход  
 determination of faults диагностика  
 неисправностей  
 determine установить, определить  
 duties обязанности  
 ear muffs наушники  
 examine обследовать  
 faulty wiring неисправная  
 электропроводка  
 fill наполнять  
 fit крепить, устанавливать,  
 пригонять;

fitting подгонка/посадка  
 (деталей)  
 fittings соединения  
 fluid level уровень жидкости  
 goggles защитные очки  
 hydraulic cylinder  
     гидравлический цилиндр  
 inflate надувать, наполнять  
 газом, воздухом  
 install устанавливать  
 installation установка  
 job работа  
 lights светосигнальное  
 оборудование  
  
 loose screws ослабшие винты  
 lubricate смазывать  
 maintenance техническое  
 обслуживание  
 maintenance stand лестница  
 operate работать, действовать,  
 функционировать  
 overhaul капитальный ремонт;  
 ремонт тировать  
 overhauling капитальный ремонт  
 platform лестница  
 protective devices защитные  
 приспособления  
 repair of faults устранение  
 неисправностей  
 replacement замена



reservoir резервуар, бак  
rib ребро, нервюра  
service обслуживать;  
обслуживание, служба  
shock strut амортизационная стойка  
skin обшивка, покрытие  
skin covering обшивка  
spar лонжерон  
spring пружина  
stringer стрингер

**Remember:**

a) to examine — to inspect  
routing servicing — day-to-day servicing  
work — job v  
to repair faults — to correct faults  
to remove — to replace — to change  
to determine faults — to locate faults — to  
find faults  
to correct level -- to regulate level  
to fit — to install  
to look (at) — to watch — to observe  
to assemble — to mount  
to inflate — to pump  
water reservoir — water tank  
a replacement — a change  
maintenance stand — platform — ladder

tear пробоина, разрыв  
technician техник  
test испытывать, исследовать;  
испытание, исследование  
tighten подтягивать  
tightness плотность  
wear носить, изнашивать  
wheel bearings колесные  
подшипники

b). maintain — maintenance  
tighten — tightness  
overhaul — overhauling  
fit — fitting  
cover — covering  
wire — wiring  
clean — cleaning  
land — landing  
service — servicing  
damage — damaged  
compress — compressed  
determine — determination  
connect — connection  
install — installation  
correct — correction  
examine — examination  
operate — operation  
adjust — adjustment  
replace — replacement  
equip — equipment  
protect — protective — protection  
fail — failed — failure

**1. Answer the following questions:**

1. What are the main duties of aircraft maintenance technicians?
2. What are aircraft maintenance technicians?
3. What do they service?
4. What do they have to do?

5. What parts do they repair?
6. What can be replaced?
7. What do they have to use while working on fuselage?
8. What devices may they have to wear while servicing aircraft?
9. What can they adjust?
10. What does aircraft servicing include?
11. What tools are used by aircraft maintenance technicians?

**2. Put each word into its correct place:**

*tighten      using      covering      faulty      inflate      protective      install*  
*tightness      damaged      fill*

1. We . . . fuel tanks and oil reservoirs.
2. We repair cracks or tears in skin . . . .
3. They replace lights and . . . wiring.
4. They may have to wear . . . devices.
5. We may have to . . . engines.
6. We have to test . . . of connections
7. We may have to . . . loose bolts.
8. They can remove the . . . parts.
9. They can . . . tires.
10. They service aircraft . . . tools.

**3. Translate into English:**

Техническое обслуживание, обшивка, устранение неисправностей, подшипники, ремонтировать, смазывать, состояние, уровень жидкости, соединения, светосигнальное оборудование, замена, неисправная электропроводка, лестница, обследовать, наполнять, соединять, прочищать, крепить, обслуживать, регулировка.

**Read the text and discuss it:**

**STRUCTURAL INSPECTION**

Routine inspection means tolerable limits of wear and damage, inspection for cracks, loose rivets, corrosion, bow, buckling, and instability.

Structural inspection includes maintenance and overhaul of fire control systems, ice protection systems/equipment (ice detector system);

It includes maintenance of cabin installations, repair of lifebelts and dinghies, harnesses and safety belts.

The duties include aircraft power supplies inspection: aircraft batteries, DC generators, DC power circuit; AC circuits, rectifier, transformers, alternator drives.

The duties include maintenance and fault finding in aircraft electrical systems (wiring systems, cables, busbars, motors, actuators).

The job includes maintenance of fuses, circuit breakers, relays; rotary inverters and converters; lifting, heating, engine starting, radio power supply, electrical instruments.

Aircraft engines maintenance (oil pumps, oil pressure regulation, and grease) is important.

One of duties of aircraft engineers/mechanics is cooling (air cooling/liquid cooling). They maintain and overhaul fins, cowls, gills, supercharging, ignition, propellers. .

They maintain power plants (engine bearers, engine control systems; throttle and propeller controls, cooling controls).

They service fire warning and extinguishing systems, engine instrumentation (r.p.m., pressure, oil temperature, fuel pressure, and cylinder temperature).

Flight engineers/mechanics are responsible for fuels, fuel systems, refuelling, pressure refuelling, defuelling, and explosion precautions.

They inspect and adjust fuel systems/oil systems (tanks, coolers, cocks).

They detect cracks, provide Cleaning. They inspect compressors, turbines, gears, nozzles, bearings, jet pipes, fans.

They control engine performance (pressure gauges, hydraulic pressure, gauges).

Engine instruments are: engine speed indicator, thermometers, oil and fuel pressure gauges, fuel flow meters, fuel contents gauges. They overhaul and repair instrument systems, communication equipment, navigation aids.

They examine engines and ground run engines. They renew cables. They are responsible for preflight inspection on apron: starting, running and stopping engines.

They observe instrument reading. They check functioning of electrical components.

They test equipment for leaks and errors. They adjust flying controls. All defects are to be recorded and rectified:

After any replacement full functioning checks are to be made. These checks include ground testing of hydraulic system with retraction of landing gear and testing of electrical system. Engines are to be ground run.

Their duties are emptying and inserting fuel tanks, draining oil and other systems, inspection of internal tanks, and detailed examination of cabin structure, pressurization and leak rate tests.

Flight engineers/mechanics inspect and recharge fire extinguisher bottles.

They inspect fire detection and extinguishing systems, alarm systems, extinguish petrol fires.

They service drinking and washing water systems.

They inspect fuel system components (cocks, line booster pumps, filters, valves).

They inspect safety equipment (survival kits, safety belts, lifebelts, dinghies).

They investigate failed components to discover the causes of failure.

### Learn the new words:

AC circuit переменный ток  
actuator привод, силовой цилиндр  
aid средство, устройство, аппарат  
alarm system система аварийного оповещения  
alternator генератор переменного тока  
bearer опора, стойка  
booster pump насос подкачки  
booster усилитель, привод  
bow изгиб  
buckling прогибание, выпучивание  
busbar основная (силовая) электрошина  
cause причина  
circuit breaker автомат защиты сети  
converter преобразователь, демодулятор  
corrosion коррозия  
DC circuit постоянный ток  
defueling слив топлива  
detect обнаруживать  
dinghy надувная спасательная лодка  
discover обнаруживать  
drive привод  
emptying слив (топлива)  
error ошибка, погрешность, отклонение  
explosion взрыв  
failure отказ, неисправность  
finding определение, нахождение

fire control system противопожарная система  
fire detection system система пожарной сигнализации  
fire warning сигнализация о пожаре  
fuel content запас (количество) топлива  
fuel contents gauge топливомер  
fuel flow meter расходомер топлива  
fuel flow расход горючего  
gill жалюзи, створка  
harness ремень (безопасности)  
ice detector сигнализатор обледенения  
ice protection system противообледенительная система  
ignition зажигание, воспламенение  
include включать  
instability неустойчивость  
instrumentation приборы, оборудование  
internal внутренний  
inverter преобразователь  
investigate исследовать, изучать  
jet pipe выхлопная труба, реактивное сопло  
leak rate интенсивность утечки  
petrol бензин, топливо  
power supply источник электропитания (энергопитания)  
precaution предосторожность  
pressurization наддув, нагнетание

r.p.m. (revolutions per minute)  
          обороты, число оборотов  
readings  показания  
recharge  перезарядить  
rectifier  выпрямитель  
renew      заменять  
replacement  замена  
retraction  уборка (шасси)  
rivet      заклепка  
safety equipment  аварийно-  
                  спасательное оборудование

supercharge  нагнетать (воздух,  
                  смесь), подавать (воздух)  
supercharging  наддув, создание  
                  наддува  
supply      снабжение; снабжать  
survival equipment  средства  
                  спасения  
throttle control  управление газом  
                  (двигателя)  
tolerable limit  допустимый предел

**Remember:**

a) limits of wear and damage  
    the causes of failures  
    fault finding in aircraft electrical  
    systems  
    duties of aircraft engineers  
    functioning of electrical  
    components

inspection for cracks  
maintenance of installations  
responsible for refuelling  
test for leaks and errors  
examination of cabin structure

b). air cooling  
aircraft engines maintenance  
aircraft power supplies  
fire warning system  
cabin installations  
communication equipment  
ear muffs  
engine control systems  
engine control systems  
engine instruments  
engine performance  
engine speed indicator  
engine starting  
explosion precautions  
fire control systems  
fire detection system  
fire extinguisher bottle  
fluid level  
fuel content gauge  
fuel flow meter  
fuel pressure

fuel pressure gauge  
fuel system  
fuel tank  
ground testing  
ice detector system  
ice protection systems  
instrument readings  
landing gear parts  
life belts  
liquid cooling  
navigation aids  
preflight inspection  
pressure gauges  
radio power supply  
safety belts  
safety equipment inspection  
shock strut  
skin covering  
wheel bearings  
oil pressure regulation

aircraft airframe  
aircraft mechanic  
aircraft systems  
aircraft instruments specialists  
aircraft radio engineers

maintenance technician  
aircraft engineer  
aircraft power plant  
aircraft maintenance personnel  
radio mechanic

**1. Put each of the following words into its correct place in the sentences below:**

*rectified*   *warning*   *leaks*   *safety*   *loose*   *run*   *starting*   *finding*  
*power*   *renew*   *overhaul*   *responsible*   *explosion*   *failure*  
*detect*

1. Routine inspection means inspection for cracks . . . rivets, corrosion, bow.
2. Structural inspection includes maintenance and . . . of fire control systems.
3. It includes maintenance of cabin installations . . . . repair of lifebelts, harnesses and . . . belts.
4. The duties include maintenance and fault . . . in aircraft/helicopter electrical systems.
5. The job includes maintenance of fuses, heating, engine . . . electrical instruments.
6. They maintain . . . plants.
7. They service fire . . . and extinguishing systems.
8. Flight engineers are . . . for fuel systems and fuel systems.
9. They are responsible for refuelling, defuelling and . . . precautions.
10. They . . . cracks and provide cleaning.
11. They examine engines and ground . . . engines.
12. They . . . cables.
13. They test equipment for . . . and errors.
14. All defects are to be recorded and . . . .
15. They investigate failed components to discover the causes of . . .

**2. Use the correct form of the given word:**

**1. find**

The duties include maintenance and fault . . . in aircraft/helicopter systems.

**2. start**

The job includes maintenance of fuses, heating and engine . . . .

**3. cool**

They inspect and adjust fuel systems/oil systems tanks . . . cocks.

#### **4. perform**

They control engine . . . .

#### **5. function**

They check . . . of electrical components.

#### **6. equip**

They test . . . for leaks and errors.

#### **7. replace**

After any . . . full functioning checks are to be made.

#### **8. retract**

These checks include . . . of landing gear.

#### **9. detail**

Their duties are draining oil and other systems, inspection of tanks . . . examination of pressurization and leak rate tests.

#### **10. extinguish**

They inspect and recharge fire . . . bottles.

#### **11. equip**

We inspect safety . . . .

#### **12. fail**

We investigate . . . components to discover the causes of failure.

#### **13. inspect maintain**

Structural . . . includes . . . and overhaul of systems.

#### **14. install**

Structural inspection includes maintenance of cabin . . .

#### **15. invert convert**

Their job includes maintenance of fuses, circuit breakers, relays, rotary ... and ...

#### **16. response**

Flight engineers/mechanics are . . . for fuel systems.

### **3. Answer the following questions:**

1. What does routine inspection mean?
2. What does structural inspection include?
3. What do the duties include?
4. What does the job of mechanics/engineers include?
5. What maintenance is important?
6. What do they maintain and overhaul?
7. What systems do they maintain?
8. What systems do they service?
9. What are flight engineers/mechanics responsible for?
10. What do they inspect?
11. What systems do they inspect?
12. What can they detect?
13. What can they provide?

14. What instruments do they control?
15. What are engine instruments?
16. What systems do they overhaul and repair?
17. What do they examine?
18. What do they renew?
19. What does preflight inspection on apron include?
20. What readings do they observe?
21. What do they test?
22. What can they adjust?
23. What must be recorded?
24. When are hill functioning checks to be made?
25. What do these checks include?
26. What do they inspect and recharge?
27. What do they do with failed components?



## REVISION TESTS

### TEST 1

#### 1. Translate into English:

1. У вас есть запасные предохранители?
2. Вы не закрыли люк.
3. Давайте очистим хвостовое оперение ото льда.
4. Нет воды в отстойниках топливных баков-
5. Где можно слить воду?
6. Вы начали сливать воду?
7. Когда вы начнете сливать воду?
8. Тормозные колодки перегрелись.
9. Где мы должны прогревать двигателя?
10. Мы ждем стремянку и вашего механика.
11. Нам нужно 2000 л топлива.
12. Вы уже заменили маслорадиатор?
13. Помогите отрегулировать тормоза.
14. Нам необходимо отремонтировать топливную систему.
15. Вам приходилось ремонтировать топливную систему?
16. Вы собираетесь отремонтировать этот агрегат?
17. Не подъезжайте к самолету, вам придется подождать.
18. У нас утечка масла.
19. Уберите колодки из-под колес, пожалуйста.
20. Отключите электроустановку, пожалуйста.
21. Благодарю за техобслуживание.
22. Вы установили заглушки?
23. Необходимо вызвать представителя нашей фирмы.
24. Двигатель был отключен в полете.
25. Нам пришлось отключить двигатель.
26. Вам следует заменить поврежденные провода.
27. Я проинформирую службу техобслуживания о неисправности оборудования.

#### 2. Translate into English:

1. Сколько вас в экипаже?
2. Куда летает ваш экипаж?
3. Куда вы летаете?
4. Вы летаете много?
5. У вас много пассажиров на борту?
6. У вас есть штурман в экипаже?
7. Вам приходится вызывать их механика?
8. Почему вы вызывали механика?
9. Вам приходилось делать ремонт в полете?
10. Какой ремонт вам приходилось выполнять?
11. Могут быть отказы оборудования в полете?
12. Вам приходится выполнять ремонт в полете?
13. Вы можете помочь мне заменить электропровода?

- |   |  |
|---|--|
| 14. Вы уже проверили замки?                       | 22. У нас течь топлив».                    |
| 15. Давление масла высокое?                       | 23. Заполните бак водой.                   |
| 16. Вы проверили давление топлива?                | 24. Слейте отработанную воду.              |
| 17. Вы водите машину?                             | 25. Уберите в пилотской кабине и в салоне. |
| 18. Я не могу запустить двигателя.                | 26. У вас есть аптечка?                    |
| 19. Можно я сделаю это для вас?                   | 27. Вы сможете прислать домкрат?           |
| 20. Нам необходимо заменить отказавший двигатель. | 28. У вас есть чистая вода?                |
| 21. Я не могу открыть дверь.                      |  |

## TEST 2

### 1. Translate into English:

1. Мне придется вызвать механика, необходим ремонт двигателя.
2. Уберите колодки из-под основных шасси,
3. Все в порядке, отсоединитесь.
4. Уберите наземное питание.
5. Я уже выписал требование, вот оно.
6. Сейчас вы можете подъехать к нашему самолету.
7. Возможно немного опустить трап?
8. Не повредите дверь.
9. Я буду прогревать двигателя.
10. Вы сможете прислать механика для проверки органов управления самолетом?
11. Нам придется заменить колесо.
12. Мне нужна вода для охлаждения колес.
13. Пришлите уборщицу для уборки пассажирских салонов.
14. Вы сможете удалить снег с крыльев?
15. Не могли бы вы проверить топливный насос?
16. Сколько времени потребуется, чтобы прислать клапан и заменить его?
17. У нас была проблема с тормозами, проверьте их, пожалуйста.
18. Вы можете прислать стремянку повыше для осмотра крыльев?
19. Пожарная машина выслана для заправки?
20. Вы отправили два трала? Где они?
21. Мы выполнили посадку для ремонта основной стойки шасси.
22. Нам нужна ваша помощь, мы собираемся заменить это колесо.
23. Вы можете заменить фильтры в топливной системе?
24. Вы уже заменили фильтры?
25. Вы сейчас заменяете фильтры?

26. Сколько нам ждать заправщика?
27. Мы ждем вашего механика.
28. Какие запчасти вы сможете прислать для ремонта?
29. Я должен осмотреть двигатели, мне нужна Лестница.
30. Заправка закончена, вы можете отсоединить заправочные шланги.
31. У нас была неисправность двигателя в полете.
32. Я запустил левый двигатель в полете.
33. У меня были трудности при выпуске шасси,
34. Гидросистема № 2 была не в порядке.
35. Мы будем запускать двигатели наземного источника питания.
36. Вы уже промыли фильтр?
37. Я доложил о неисправности топливного насоса.
38. Вам придется заменить, масляный радиатор.
39. У нас нет запчастей для ремонта насоса.
40. Вы уже отрегулировали датчики?
41. Есть возможность отремонтировать этот агрегат?
42. Вы можете обеспечить холодную воду для охлаждения тормозов?
43. Пришлите пожарную машину, пожалуйста, я не могу начать дозаправку.
44. У меня нет набора инструментов для замены колеса.
45. У вас есть подъемник? Пришлите его, пожалуйста.
46. Вы сможете заполнить баки холодной питьевой водой?
47. Нам потребуется около 2 часов, чтобы устранить эту неисправность.
48. Вы можете помочь мне заменить отказавший стартер?
49. Я думаю, что топлива будет достаточно для дозаправки.
50. Вы можете начинать заправку снизу.
51. Не повредите самолет, опуская трап.
52. Вы проверили топливо на наличие воды?

## 2. Translate into English:

1. Вы закрыли крышку фильтра?
2. "Дворники" не в порядке.
3. Позвольте посмотреть ваши ремни. Они не в порядке.
4. Разрешите представиться, я бортинженер. Это наш экипаж.
5. Я не могу понять вас, говорите медленнее.
6. Нам необходим баллон азота.
7. Вы заполнили амортизатор азотом?
8. Почините освещение в пилотской кабине.
9. Давление в колесах низкое, помогите подкачать их.

10. Проверьте отстой топлива в баках на наличие воды и слейте воду.
11. Давайте проверим тормоза.
12. Лобовое стекло пилотской кабины было разбито.
13. Где вы обнаружили трещину?
14. Когда будут отправлены нам запчасти?
15. У нас была проблема с закрылками.
16. Вы сняли колесо?
17. Необходимо заменить тормоза.
18. Я только что вызвал механика.
19. У нас неисправность гидросистемы.
20. Вы проверили топливный насос?
21. Топливный насос работает нормально?
22. Прекратите дозаправку, пожалуйста.
23. Трудно было обнаружить неисправность двигателя?
24. Предъявите паспорт на топливо.
25. У нас течь топлива в двигателе № 2.
26. Пришлите вашего специалиста для ремонта основной опоры шасси.
27. Нам пришлось заменить клапан.
28. Я проверил сорт масла и топлива.
29. Нам придется заменить гидроаккумулятор.
30. Заправьте химжидкостью туалеты.
31. Вы можете прислать набор инструментов?
32. Вы отправили пожарную машину и два трапа?
33. Давайте начинать дозаправку.
34. Вы сможете осмотреть хвостовое оперение?
35. Много снега на крыле и стабилизаторе, уберите снег.
36. Вы осмотрели руль высоты?
37. У вас есть запасной шланг?
38. Отбуксируйте наш самолет на стоянку 9.
39. Не забудьте закрыть люк.
40. Начинайте заправку снизу.
41. Заполните бак питьевой водой.
42. Вы уже проверили этот агрегат на наличие повреждений?
43. Протрите масло на гондоле двигателя и шасси.
44. Вы сможете установить место неисправности?
45. Если я обнаружу трещину, агрегат придется заменить.
46. Мы ждем заправщика.

47. Нам нужен трал и запчасти для ремонта.
48. У нас мало топлива.
49. Мы выполнили посадку для ремонта двигателя.
50. У нас течь в тормозах.
51. Имеется трещина в тормозной трубке.
52. Вы сможете прислать нам запасную трубку?
53. Нам потребуется 30 минут для замены трубки.
54. Я должен проверить трубку на отсутствие течи.
55. Нам придется заменить законцовку крыла.
56. Мы поставим запасную законцовку, это займет 5 часов.

### TEST 3

Добрый день! — Добрый день!

У вас есть какие-либо проблемы? (Какие у вас проблемы?) — Нет. (Нет технических проблем.)

Заправка нужна? — Да.

Сколько нужно топлива? — 6000 галлонов.

Где горловина? — Вот здесь.

Заправка закончена. — Хорошо, спасибо.

Вот требование, распишитесь.

Возьмите два экземпляра. — Благодарю. (Благодарю за техобслуживание.)

Пожалуйста. Пока. — До свидания.

У вас есть проблема? — Да, нам нужно слить воду и промыть водяную систему.

Какая у вас проблема? — В питьевой воде есть масло, у водозаправщика был дефект.

Вам следует промыть насос. — Конечно, давайте промоем насос. Насос должен быть промыт.

Наземный источник питания слабый, замените его.

Хорошо, мы заменим его. — Благодарю за помощь.

#### 1. Answer the following questions:

- |   |   |
|---|---|
| 1. Do you need a ground power unit to start up? | 6. Did you restart the engine in flight?  |
| 2. How much fuel do you need?                   | 7. Have you called a station engineer?    |
| 3. Have you flaps failure?                      | 8. How long can you wait for spare parts? |
| 4. Have you replaced the oil cooler?            |   |
| 5. Are you waiting for our mechanic?            |   |

9. When are you going to start up the engines?
10. Do you need a tow-unit?
11. Shall I push away the stairways?
12. Is it necessary to drain the waste, water?
13. Have you located faulty equipment?
14. Do you need any life jackets?
15. How many hours have you flown?
16. Was it necessary to check all instruments and devices?
17. Are you going to replace the wheel?
18. How do you refuel: from underneath or overwing?
19. Did it take you much time to locate the trouble?
20. Do you have to remove the failed engine?
21. Is there a crack in the engine?
22. Were there many wires damaged?
23. Why are you going to remove flaps?
24. Have you got any spares on board?
25. Shall we send you a bottle of oxygen?
26. Where do I have to check for cracks?
27. What duct do you need?
28. How much water do you need to fill the tanks?
29. What ladder do you need?
30. Are your brakes in order now?
31. What wheel do you have to replace?
32. Have you regulated the gages?
33. Shall I disconnect the fueling hose?
34. Were you able to restart this engine in flight?
35. Shall we start refuelling from underneath?
36. Why should we lower the steps?
37. Will you run up the engines?
38. Do you need cold or hot water?
39. Is there a passenger step at the plane?
40. Have you inspected the grade of oil and fuel?
41. What parts must we clean?
42. Have you informed the maintenance about your faulty unit?
43. Are you going to remove this device?
44. Is there oil leak?
45. Are you able to locate a defect?
46. How many years have you been flying?
47. Will you replace the burst tyre?
48. Do you need a water vehicle to refill water containers?
49. Shall I disconnect the fuel hose?
50. Why did you have to cut off the port engine?
51. Have you got any faulty equipment?

52. Shall I remove the steps?
53. What defects have you revealed?
54. Were there any problems with the flaps?
55. Have you made any emergency repairs in flight?

**2. Answer the following questions:**

1. Is your crew in the plane?
2. What wiper is out of order?
3. Are you going to run up the engines?
4. Do you need a fire engine to start up?
5. Shall I remove the ladder?
1. 6 . Are your brakes operating properly?
6. Were there any technical problems in flight?
7. Shall we send you a tow unit?
8. Must you fill the shock absorber with oil?
9. Are you calling a mechanic?
10. What problems did you have in flight?
11. What is your failure?
12. Have you a burst tyre?
13. Do you understand me or shall I speak slower?
14. Have you checked the grade of fuel?
15. Do you need any drinking water?
16. Did it take you much time to locate the failed equipment?
17. What fault have you located?

56. What equipment will you use to locate the defect?
57. How much drinking water do you need?
58. Why did you call a crew of mechanics?
18. Shall we send you a maintenance stand?
19. Is it time to take chocks away?
20. Are your ailerons in order now?
21. Have you had a problem with the elevator?
22. Why have you cut off the engine?
23. How many fire extinguishers do you need?
24. How many hours has this engine operated?
25. What problems did you have?
26. Do you have to change the grease?
27. What tools will you need for repair?
28. Why are you calling your company representative?
29. Have you landed to repair the fuel system?
30. What equipment are you replacing?
31. How can we help you?
32. Is it possible to repair this unit?
33. What are your problems now?
34. Are there any troubles with slats?
35. What parts were damaged?

- |  |   |
|--|---|
| <p>36. Have you inspected the aft end of the fuselage?</p> <p>37. Do you need a ladder to reach the empennage?</p> <p>38. What's the fuel grade?</p> <p>39. Is the inspection (check) over?</p> <p>40. Do we have to inspect the wings and ailerons?</p> <p>41. Shall we start the inspection on the empennage?</p> <p>42. Was there oil leak? (fuel leak, water leak)</p> <p>43. What kind of trouble have you got?</p> <p>44. When can I move up to the plane?</p> | <p>45. How much oxygen do you need?</p> <p>46. Shall I connect the fill hose to the aircraft here?</p> <p>47. What jack shall we send to you?</p> <p>48. Have you got brake trouble?</p> <p>49. What kind of trouble have you got?</p> <p>50. May I connect the water pump to the outlet of the water tank?</p> <p>51. Do you need a longer screwdriver?</p> <p>52. How many metres of cable do you need?</p> |
|--|---|

## FAILURES

### AIRFRAME AND AIRCRAFT SYSTEMS FAILURES

Can you send us your specialists?

1. Fuselage skin is damaged. — Повреждена обшивка фюзеляжа
2. The wheel tire of the main shock absorber strut has been damaged, will you send a wheel and a tool kit. — Повреждена шина колеса основной амортизационной стойки, пришлите колесо и набор инструментов.
3. We have hydraulic control system failure: (malfunction) — У нас отказ гидросистемы управления;
  - a) gear retracting and extension failure; — отказ системы уборки и выпуска шасси;
  - b) nose wheel shock absorber failure; — отказ передней амортистойки;
  - c) flaps failure; — отказ системы привода закрылков;
  - d) slats failure; — неисправность предкрыжов;
  - e) spoilers failure; — неисправность интерцепторов;
  - f) stabilizer failure; — отказ стабилизатора.
4. We have air bleed system failure. — У нас отказ системы отбора воздуха.
5. Automatic pressure control system has failed. — Отказала система автоматического регулирования давления.



6. We have air conditioning system failure. — У нас отказ системы кондиционирования воздуха.
7. We have wing antiicing system failure. — У нас отказ противообледенительной системы крыла.
8. We have engine antiicing system failure. — У нас отказ противообледенительной системы двигателя.
9. Boost elevator control has foiled. — Отказ бустерного управления рулем высота.
10. We have rudder control failure. — У нас отказ управления рулем направления.
11. Air starter failure. — Отказ воздушного стартера.
12. We have flaps synchronization system failure. (We have flaps desynchronization.) — У нас отказ системы синхронизации выпуска закрылков.
13. Propeller is damaged. — Поврежден воздушный винт.

### **POWER PLANT (POWER UNIT) FAILURES**

1. "Chips-in-oil" detector is on. — Сработала сигнализация "Стружка в двигателе". (chip detector — стружкосигнализатор)
2. Critical engine vibration warning system is on. — Сработала сигнализация "Опасная вибрация".
3. We have shut down the engine.
4. Fire extinguisher self-discharge into the engine nacelle. — Самопроизвольная разрядка огнетушителей в гондолу.
5. The engine was shut down due to overspeeding. — Двигатель был выключен из-за превышения допустимого числа оборотов двигателя, (overspeed — "заброс" оборотов)
6. No ignition at starting. — Нет воспламенения топлива при запуске.
7. Engine speed holdup. — Зависание оборотов двигателя.
8. We have engine stall (surge) at starting. — Помпаж двигателя при запуске.
9. Engine data variations. — Колебания параметров двигателя.
10. Generator failure. — Отказ генератора.
11. Starter generator failure. — Отказ стартера генератора.

### **SYSTEMS FAILURES**

1. Speed indicator failure. — Отказ указателя скорости.
2. Altimeter failure. — Отказ высотомера.
3. Attitude-rate indicator failure. — Отказ вариометра.

4. Statics failure. — Отказ статики.
5. Dynamics failure. — Отказ динамики.
6. Gyrohorizon failure. — Отказ авиагоризонта.
7. Compass system failure. — Отказ курсовой системы.
8. Long-range navaid failure. — Отказ системы дальней навигации.
9. Short-range navaid failure. — Отказ системы ближней навигации.
10. Radar failure. — Отказ локатора.
11. Radio failure. — Отказ радиостанции.
12. We have left engine ignition system failure. — Неисправна система зажигания левого двигателя.
13. There is main shock strut failure. — Неисправность основных амортизационных стоек.
14. Check the liquid level in the main shock strut and nitrogen pressure — Проверьте уровень жидкости в амортизационных стойках и давление азота.
15. There is oil leak from main shock absorbing cylinder. — Течь масла из гидравлического цилиндра уборки основной стойки шасси.
16. Wrong indication of fuel level gage, it is necessary to check fuel flow meter. — Неправильные показания топливомера, необходимо проверить расходомер.

## TEST

1. У нас отказ системы отбора воздуха.
2. У нас неисправность интерцепторов.
3. У нас неисправность предкрылков.
4. У нас отказ системы уборки и выпуска шасси.
5. Повреждена шина колеса основной амортизационной стойки, нам необходимо колесо и набор инструментов.
6. Лобовое стекло пилотской кабины разбито.
7. Мы поставим запасную законцовку, это займет около 5 часов.
8. Имеется трещина в тормозной трубке, я должен проверить, трубку на отсутствие утечки.
9. Отказ бустерного управления рулем высоты.
10. У нас отказ противообледенительной системы двигателя.
11. У нас отказ системы кондиционирования воздуха.
12. Отказала система автоматического регулирования давления.
13. Сработала сигнализация "Опасная вибрация", мы выключили двигатель.
14. Сработала сигнализация "Стружка в двигателе".
15. У нас отказ воздушного стартера.

16. У нас помпаж двигателя при запуске.
17. Зависание оборотов двигателя.
18. Нет воспламенения топлива при запуске.
19. Двигатель был выключен из-за превышения допустимого числа оборотов двигателя.
20. Самопроизвольная разрядка огнетушителей в гондолу.
21. У нас отказ курсовой системы.
22. Отказ стартера генератора.
23. Колебания параметров двигателя.
24. Мы будем запускать двигатели от наземного источника питания.
25. Неправильные показания топливомера, необходимо проверить датчик расходомера.
26. Не работает аэродромный источник питания, мы запустим вспомогательную силовую установку.
27. У нас треснула трубка в топливной системе.
28. Мне нужно ведро для химжидкости.
29. У нас была утечка масла, необходимо проверить заглушки.
30. Была течь в предохранительном клапане.

## **ДОПОЛНИТЕЛЬНЫЙ МАТЕРИАЛ**

### **Translate into Russian:**

1. Inspect the aft end of the fuselage.
2. Inspect the wings and ailerons.
3. Let's open the inspection plates and start inspection.
4. Open the inspection plates aft of the main spar.
5. Open the rear of the fuselage and inspect the stringers from the inside.
6. Any part may show wear.
7. We have to replace a worn aileron cable.
8. We have to take the rudder off.
9. Rudder needs a new skin.
10. A hinge was cracked in the vertical stabilizer.
11. We have to replace a part of the longeron.
12. The main spar was damaged.
13. I have to see the stringers from the inside.
14. I have to repair the stringer, it is loose.
15. I have to check the boost pumps, a fuel boost pump is leaking.
16. I have to check the drain cocks, a drain cock is leaking.

17. Let's check the fuel caps.
18. Check the fuel selector valve.
19. Remove the sediment from the fuel strainers.
20. Check the plumbing system. Replace the plumbing.
21. There is a leak in the plumbing near a transfer pump
22. Stop leaks in the plumbing.
23. There is a short, let's locate the fault and correct it.
24. The alternator failed in flight.
25. The bolt is worn, it has to be replaced.
26. Check auxiliary hydraulic pump\*
27. I have located hydraulic fluid leak.
28. Hold this with the pliers.
29. There is a leak in the accumulator.
30. There is a leak in the actuating cylinders.
31. There is a leak in the relief valve.
32. Let's check the landing gear system.
33. We have a blowout (a failure of a tire).
34. Brakes are worn.
35. The disk cracked. It was damaged due to overheating.
36. Tire tread was damaged.
37. The nose gear has a little shimmy, let's check it.
38. Check the seats, safety belts, shoulder harnesses.
39. Remove ice from the windshield. (Remove ice off the windshield.)
40. Inspect the engine nacelle for damage.
41. The fuel nozzles should be cleaned.
42. You should check the igniter plugs, (свечи зажигания) ’
43. There was some oil dripping from the nacelle, check it. (капание)
44. Check the bearing lubrication system.
45. Adjust the fuel control unit. (командно-топливный агрегат/ регулятор подачи горючего)
46. A lot of oil was leaking out of the accessory section, (отсек Агрегатов)
47. Bearings are worn. You should replace the main bearings.
48. Inspect the engine for FOD. FOD can be caused by birds or a tool left in the inlet. (FOD — повреждение посторонним предметом; inlet — заборник)
49. The igniter plug свеча зажигания failed. Replace it.
50. I found a lot of oil in the nacelle.
50. Reduction gear (редуктор) is broken.

51. Open the cowling, there is oil leak; replace the cowling under one cylinder.
52. You can check valves.
53. We found sediment (*отстой, осадок*) in carburetor.
54. One of the cylinders is cracked.
55. There may be cracks in one of the cylinders.
56. Replace the bulb. (*лампа, лампочка*)
57. Put chocks against the wheels.
58. Receiver has a little distortion. (*помеха, искажение*)
59. The ILS antenna was damaged.
60. Send a tug and a tow bar to move the aircraft.
61. We use 100 octane fuel. We require high-octane fuel (*высокооктановое*)
62. The oil temperature was high.
63. There was oil temperature problem.
64. Chocks are installed. (*установлены*)
65. Hand me the dikes (pliers). (*плоскогубцы; щипцы; клещи*)
66. Fuel supply unit must be grounded. (*топливозаправочный агрегат*)

### Notes:

actuating cylinder — силовой цилиндр, цилиндр привода

alternator — генератор переменного тока

blowout — разрыв (пневматика); заглохание (двигателя)

hinge — шарнир

inspection plate — смотровая панель; крышка смотрового люка

longeron — лонжерон

loose — свободный, ненатянутый, неплотный

plumbing system — система трубопроводов; трубопроводы

sediment — отстой (напр., воды в топливе)

shimmy — шимми; автоколебания (шасси)

short — короткое замыкание

shoulder harness — привязная система; ремни, привязные ремни

spar — лонжерон

strainer — фильтр

stringer — стрингер

transfer pump — перекачивающий насос

tread — рисунок (протектора); протектор (покрышки)

## TEST

### Translate the following sentences into English:

1. Давайте начнем осмотр.
2. Нам придется заменить кабель.
3. Шарнир треснул на стабилизаторе.
4. Нам придется заменить часть лонжерона.
5. Основной лонжерон поврежден.
6. Давайте осмотрим стрингеры внутри.
7. Я должен проверить насос подкачки, есть течь.
8. Я уже проверил сливные краны, нет утечки.
9. Вы проверили крышки?
10. Проверьте клапан управления подачей топлива.
11. Я только что проверил топливные фильтры.
12. Вы проверили насос перекачки?
13. Отказал генератор переменного тока
14. Мы обнаружили утечку гидросмеси.
15. Имеется течь в аккумуляторе.
16. Проверьте предохранительный клапан на утечку.
17. У нас разрыв (пневматика).
18. У нас повреждение диска из-за перегрева.
19. Протектор поврежден.
20. Вы можете убрать снег с лобового стекла.
21. Давайте проверим свечи зажигания.
22. Проверьте систему смазки.
23. Я отрегулировал командно-топливный агрегат.
24. Проверьте подшипники на износ,
25. Откройте капот двигателя.
26. Я заменю лампочку.
27. Антенна системы ИЛС повреждена.

### DELIVERY RECEIPT/Требование на заправку

(aircraft) Reg.№	регистрационный №	code	код, шифр
aircraft type	тип в /с	country of registration	страна
airport fees	сбор за	регистрации	
обслуживание		credit	кредит, сумма
amount	количество, сумма	customer №	заказчик N
aviation gasoline	авиабензин; газولين	density	плотность
aviation invoice	накладная	destination	аэродром назначения
aviation turbine fuel	авиационное	dispenser	заправочная колонка
реактивное топливо		flight №	номер рейса
batch №	серия; партия №	fuel dispenser	топливозаправщик
cash	наличный расчет		

fuel totalizer	сумматор;	release certificate	документ о
суммирующий расходомер	горючего	техобслуживании	
grade	сорт	signature	подпись
hose reel	рукавная катушка	signed by	подписано (кем)
inspection made	отметка о проверке	sold to	продано (кому)
inspector's mark	отметка	specification №	требование №;
проверяющего		спецификация	
issued by	выдано, (кем)	terms	условия (оплаты)
meter reading	показание прибора	test certificate №	свидетельство № (о
on behalf of .	от имени (кого)	проверке)	
количество		time of delivery	время доставки
product	продукт	totalizer reading	показания прибора
quality	качество	суммарного запаса	
quality control procedure		totals	сумматор
процедура проверки качества		water filter separator	- водоотделитель
quantity	количество	(топл. системы)	
litres delivered	доставлено (в		
литрах)			

## TEST

### Translate into English:

Качество, подпись, показание прибора, плотность, требование на заправку, страна регистрации, аэродром назначения, сорт топлива, номер рейса

1. Какой ваш регистрационный номер?
2. Какой аэродром вашего назначения?
3. Какие ваши условия оплаты?
4. Какой сорт масла и топлива у вас есть?
5. Какой сорт топлива вы используете?
6. Какое количество топлива в литрах?
7. Наш аэродром назначения - Хельсинки.
8. Какая страна регистрации?
9. Какой номер вашего рейса?
10. Где мне расписаться?
11. Давайте проверим показания прибора.
12. Давайте проверим сорт масла.
13. Дайте мне 3 экземпляра требования.
14. Могу я взять две копии этого документа?
15. Я должен расписаться здесь?

## REVIEW

### The Main Parts of the Aircraft

center wing	центроплан
fuselage (empennage)	фюзеляж
landing gear (undercarriage)	шасси
outer wing	отъемная часть крыла
port wing	левая плоскость
power plant (power unit)	силовая установка
starboard wing	правая плоскость
wing span	размах крыла
wing tip	законцовка
wing	крыло

### The Main Parts of the Fuselage/Основные части фюзеляжа

baggage cabin (baggage compartment)	багажное отделение
cargo hold (cargo cabin)	грузовой отсек
cockpit (crew cabin; flight-deck; pilot's cabin)	пилотская кабина
forward	передний
main	основной
nose	носовая часть фюзеляжа
passenger cabin (passenger compartment)	пассажирский салон
rear (aft)	задний
tail (tail-end of the fuselage; aft)	хвостовая часть фюзеляжа

### Flight Control/Органы (система) управления

aileron	элерон
control column	ручка управления
controls	система управления
elevator	руль высоты
fin	киль; стабилизатор
flaps	щитки, закрылки
inboard flap	внутренний закрылок
outboard flaps	закрылки консольной части крыла;
rudder brake pedals	педали управления рулем направления
rudder	руль направления
spoiler	интерцептор
Stabilizer (tail plane)	стабилизатор



tab (trimmer) триммер; щиток  
tail unit (empennage) хвостовое оперение  
wing flaps system система закрылков

### **Power Unit/Силовой агрегат**

accumulator аккумулятор  
cowl (cowling) капот, обтекатель  
engine двигатель  
engine mount моторама  
engine nacelle гондола двигателя  
engine power мощность двигателя  
hydraulic accumulator гидравлический аккумулятор  
jet реактивный  
oil cooler маслорадиатор  
power unit (power plant) силовая установка  
RPM (revolutions per minute) число оборотов (двигателя)  
turbofan турбовентиляторный, турбореактивный  
turbojet турбореактивный (двигатель)  
turboprop турбовинтовой (двигатель)

### **Undercarriage/Шасси**

actuating cylinder цилиндр уборки-выпуска  
bogiebeam тележка (шасси)  
bracing крепление  
brakes (mechanical, pneumatic, hydraulic brake systems) тормоза  
center section front spar передний лонжерон центроплана  
down-lock замок выпущенного положения  
filler hatch люк под заправочную горловину  
fire extinguisher огнетушитель  
first aid kit аптечка первой помощи  
frame шпангоут  
frame transverse beam поперечная балка шпангоута  
front spar передний лонжерон  
fuel quantity transmitter hatch люк для крепления датчика топливомера  
inflatable escape slide надувной спасательный трап,  
landing gear (undercarriage) шасси

landing gear retraction mechanism (up and down latch mechanisms, landing gear doors) механизация уборки шасси  
lever рычаг  
life jackets спасательные жилеты  
life ropes спасательные канаты  
main gear главное шасси  
mechanical position indicator механический указатель положения шасси  
nose gear носовое шасси  
nose landing gear передняя опора шасси  
raft storage area место для плотов  
rear spar задний лонжерон  
retract (gear) убирать (шасси)  
retracting mechanism механизация уборки/выпуска  
rib нервюра  
rod тяга  
shock absorber (strut) амортизатор  
shock strut амортизатор  
skid detector датчик автомата торможения  
spring пружина  
steering cylinders цилиндры управления поворотом (колес)  
stringer стрингер  
tube (inner tube) Камера (пневматика)  
tyre (tire) (cover) покрышка, шина  
uplock замок убранного положения  
upper center section panel верхняя панель центроплана  
upper splice strip верхняя стыковая лента  
  
wheel колесо  
wheel колесо  
Wheel well (bay) ниша колеса (шасси)  
wing center section beam балка центроплана крыла

### **BASIC TOOLS/Основные инструменты**

a set of chisels набор стамесок (резцов)  
bolt болт  
cutting tools резцы  
hacksaw ножовка  
hammer молоток

lock and key	замок и ключ
nut	гайка
pliers (dikes)	щипцы, клещи, плоскогубцы
screw-driver	отвертка
selection of files	набор напильников
set of drills	набор дрелей
set of punches	набор пробойников (пуансонов)
set of spanners	набор гаечных ключей
set of wrenches	набор ключей
snips	ножницы (для металла, проволоки)
soldering iron	паяльник
wire-cutters	кусачки

### Supplementary Glossary

#### Air Freight Handlers

belt conveyors	passenger stair (steps) (passenger loading bridges)
baggage carts	maintenance lifts (ladders)
lavatory and water service trucks	potable water cabinets
hydraulic pumping system	ordinary pneumatic tires
flush tanks	commissary and cabin service trucks
waste tank flushing	non-puncture type tires
alternator 115/200 volts	air pressure check is not necessary
fuel filters	oil pressure gauge
fuel gauge	

#### Translate into Russian:

#### Maintenance Manual. Preparation for flight.

Anti-icing is the use of fluids on a clean aircraft to prevent snow, ice or frost from its surfaces. A coating of anti-icing fluid applied to a clean aircraft may protect it from snow, ice and frost.

De-icing is the use of heated water or mixtures to remove snow, ice and frost.

Apply anti-icing fluid after de-icing as a preventive measure.

Chocks are positioned. The engines are shut down. Brakes set. Brakes released.

Tanks are equipped with a drain plug and a filler cap. Water pump is connected to the outlet of the water tank. The outlet of the main pump is connected with a valve: one way to the water delivery hose, the other to the cleaning system of the waste tank. There is a relief valve to regulate the pressure.

A meter indicates the quantity of water delivered to the aircraft. Hoses: a rinsing water hose is connected to the water pump via a control valve. The hose is stowed on a hose reel.

An additional tank for disinfecting fluid.

Water heater; pump heater; a heating system to maintain the water temperature above freezing point.

A manual water pump.

A damp valve connectable with ground drainage system.

Height steps instead of platform.

Flushing system for the water tank with controls.

A vacuum waste extraction system.

A second waste hose.

Couplings and vents to suit pressure filling.

Loading/unloading operations.

Avoid damage to the doors.

Prevent damage to the floor.

The doors should be closed and locked, any steps removed.

Aircraft should be searched prior to the boarding of passengers and after deplaning

of passengers.

Remove checked baggage, mail, cargo.

## REVIEW

### HELICOPTER MAIN PARTS

helicopter control system	система управления вертолетом
directional control pedal	педадь путевого управления (хв. винтом)
cyclic pitch control stick	ручка продольно-поперечного управления
циклическим шагом НВ	
collective pitch control lever	ручка "шаг-газ"
throttle control twist grip	ручка коррекции газа
main rotor collective pitch	гидроусилитель системы управления
control actuator	общим шагом НВ
fuel flow control unit	командно-топливный агрегат
collective pitch control rod	тяга управления общим шагом НВ
arm	качалка
swash plate	автомат перекося
main rotor	несущий винт (НВ)

main gear box    главный редуктор  
 fore-aft control rod    тяга продольного управления  
 lateral control rod    тяга поперечного управления  
 actuator    гидроусилитель  
 drive shaft    вал трансмиссии  
 intermediate gear box    промежуточный редуктор  
 control rod    тяга (путевого) управления  
 gear box    редуктор  
 anti-torque rotor    хвостовой винт  
 directional trim(ming) actuator    загрузочный механизм путевого управления:  
 lateral-longitudinal trim(ming) загрузочный    механизм продольно-поперечного управления  
 engine throttle control lever    рычаг раздельного управления газом двигателя

### **Translate into Russian:**

1. You must fasten each part; there may be burbling or buffeting if you do not fasten any part, (buffeting, burbling)
  - tail buffeting— тряска (бафтинг) хвостового оперения ;
  - wing buffeting — тряска крыла (срыв потока)
2. There are many inspection plates on the aircraft.
  - inspection plate — смотровая панель
3. A loose inspection plate can cause buffeting.
  - cause — вызывать '
4. We have to replace a part of a longeron.
5. This part of longeron looks bent.
6. Some rivets are loose.
  - rivet— заклёпка
7. We have to replace some rivets.
8. We must remove the wing root fillet.
  - wing root — корневая часть крыла;
  - fillet ['filit] — кромка, залдо, обтекатель
9. The wing was damaged at its root.
10. Replace the fillet at the left wing root.
11. The wing skin is loose.
12. Open the inspection plates aft of the main spar.
  - the main spar— главный лонжерон
13. The main spar was damaged.

14. Some stringers are loose.  
I have to repair the stringer.
15. The ailerons are hard to move.
16. Let's inspect the wings and ailerons.
17. Let's inspect the aft end of the fuselage.
18. Let's open the inspection plates.
19. I have to see the bulkheads and stringers from the inside.  
bulkhead — перегородка; шпангоут;  
inside — внутри
20. Let's open the rear of the fuselage and see the bulkheads and stringers from the inside.
21. Any part may show wear. Any part may be worn.
22. The attitude control for pitch is a little stiff (немного заклинено).
23. Let's check the bell cranks in the aileron system.  
bell crank — качалка, коленчатый рычаг
24. There is a cracked bell crank.  
You have to replace the cracked bell crank,
25. We have to replace a worn aileron cable,
26. Let's adjust cable tension.  
tension — натяжение тросов.
27. I have to change the cables on the controls.
28. I have to inspect the pulleys in the fuselage.  
pulley — шкив, ролик
29. One pulley is worn. One pulley has to be replaced.
30. The cotter key is broken.  
key — чека, ключ, запор
31. A push-pull rod connects the wheel to the bell crank.
32. A push-pull rod is bent. (Тяга осевой передачи усилий изменена.)
33. Let's inspect the rudder. I have to take the rudder off.
34. A new skin was put on the rudder.
35. I have to safetie the piano hynge.  
to safetie — законтрить;  
the piano hinge — шомпольный шарнир
36. A tumbuckle is safetied. (тандер носового соединения)
37. A hinge was cracked on the vertical stabilizer.
38. A bladder had a leak, we have to replace the bladder. (мешок топливного бака)
39. I have to check the boost pumps. (подкачивающий насос)

40. A fuel boost pump is leaking.
41. There are 6 fuel cells. (топливный бак-отсек)
42. I have to check the draincocks. (сливной кран)
43. The draincocks have to be checked.
44. A draincock is leaking.
45. Let's check the fuel caps. (крышка заливной горловины)
46. Check the fuel selector valve. (переключатель топливомера)
47. Remove the sediment from the fuel strainers, (прямоточный топливный фильтр)
48. Let's check the plumbing system. (обеспечение подачи топлива)
49. We have to replace the plumbing. (трубопровод)
50. There is a leak in the plumbing near a transfer pump. (перекачивающий насос)
51. Stop leaks in the wet wing.  
     wet wing - крыло с топливными баками;  
     dry wing — крыло без топливных баков.
52. Let's check fuel for impurity. (загрязнение, примесь)
53. There is a short. (короткое замыкание)
54. The alternator failed in flight. (генератор переменного тока)
55. The bolt is worn, it has to be replaced.
56. This wrench isn't the right size.
57. Let's check auxiliary hydraulic pump.
58. Let's check for leak. There's hydraulic fluid leak.
59. Check the actuator.
60. There were pressure surges. (колебания давления)
61. We have to replace the pressure relief valve.
62. There is a leak in the relief valve.
63. There is a leak in the actuating cylinders. (силовой цилиндр)
64. There is a leak in the accumulator.
65. I need dikes.
66. I need pliers.
67. This actuator needs replacing.
68. Let's check the gaskets. (прокладка, сальник)
69. Let's run a retraction test on the gear.
70. We need some jacks. Attach the jacks to the aircraft.
71. We have to check the landing gear system.
72. We have a blow out, we have to replace the tire.
73. Brakes are worn.
74. The disk cracked.

75. The disk was damaged due to overheating.
76. Check the antiskid system for proper work. (автомат скольжения)
77. Tire tread was damaged. (протектор покрышки)
78. Check the engine nacelles.
79. Clean the fuel nozzles.
80. The fuel nozzles should be cleaned.
81. Plugs should be checked. Plugs may fail.
82. There was some oil dripping from the nacelle. (капание, просачивание)
83. Check the bearing lubrication system.
84. Adjust the fuel control unit.
85. Oil was leaking.
86. Replace the cowling:
87. Bearings are worn.
88. The main bearings should be replaced.
89. FOD (foreign object debris) can be caused by birds or metal objects; (a tool left in the inlet). (повреждение инородными телами) (металлические предметы)  
(инструмент оставлен в заборнике)
90. The engine reduced thrust. (тяга)
91. There was oil in the nacelle.
92. The engine needs repairs.
93. Let's run up the engines and check the plugs.
94. Check the fuel caps.
95. It needs adjustment.
96. The pump needs adjusting.
97. Let's take the cowling off and start the inspection.
98. There may be cracks in the exhaust system. (выхлопная система)

## TEST

### Translate:

1. У нас поврежден воздушный винт, пришлите самую высокую стремянку, чтобы осмотреть его.
2. У меня проблема с левым двигателем, вы можете прислать механика?
3. Пришлите топливозаправщик для дозаправки топливных баков.
4. У меня некоторые проблемы с таможней, могу я пригласить нашего представителя?



5. После посадки у нас отказали тормоза, мы выключили двигатели.  
Пришлите буксировщик, чтобы отбуксировать нас на стоянку.
6. Я не могу загрузить вертолет, нуждаюсь в вашей помощи.
7. У нас повреждение шасси, вы можете прислать бригаду механиков и набор инструментов?
8. Пришлите представителя технической службы, если это возможно.
9. Как только экипаж покинет вертолет, мы начнем его загрузку.
10. Был отказ основной гидросистемы, я должен проверить масло в гидробаке, вы можете помочь мне?
11. У нас было высокое давление масла в главном редукторе.
12. Вы можете закрепить лопасти несущего винта?
13. Мне пришлось заменить предохранитель.
14. Нам придется заменить колесо, вы можете обеспечить смазку и домкрат?
15. Повреждена обшивка фюзеляжа, могу я вызвать бригаду механиков?
16. Будет холодно, обеспечьте подогрев двигателей.
17. У нас проблема — треснула трубка маслосистемы, мне нужен гаечный ключ.
18. Давление топлива низкое, давайте проверим топливные фильтры.
19. Поставьте стремянку под хвостовым винтом.
20. Вам придется прислать тягач для разгрузки вертолета.

**Read, translate and learn the text:**

## AIRPORTS

The modern airport is a center of many services: flight assistance service, air traffic control — airport traffic control, radio communications, weather service and forecasting, rescue and security services. There must be an airport clinic, a fire brigade, special vehicles and equipment units (water trucks, catering trucks, air freight and baggage handling units, tow tractors). They must provide maintenance, overhaul and repair of stationary and mobile equipment, the supply of electricity, water, heat and air conditioning.

There must be the aircraft maintenance base, the fuel supply centre with underground pipelines. Cables and hoses are provided for ground support services (electric power, air conditioning,; engine starting air).

The facilities include runways, taxiways, air navigation aids, passenger and cargo terminal buildings. The airport offers hotels, a post-office, bank office, restaurants, snack bars, car rental firms, pharmacy, travel office, the barber, the beauty

shop, the supermarket, the waiting lounges. In the reception halls at the check-in desks the suitcases are weighed and labelled. There are immigration counters. There is an electronic flight information board, it lists departure and arrival times.

Passengers board the aircraft via loading bridges (passageways or fingers). There is the baggage reclaim area. The baggage claim carousel is on the lower floor. There are counters for security check of hand baggage and body check. Baggage trains take the luggage to the aircraft. There is a coach or taxi to get to the city. Passengers can make a long-distance telephone call, send a cable, exchange currency, buy a few things at the shops. There are sections for kids with sleeping rooms and playgrounds.

During grounding the aircraft are overhauled by airport maintenance department. The aircraft are refuelled, topped up with oil and supplies for the pressurizing system.

The ICAO Council has developed uniform signs for use at the international airports: ARRIVALS, FIRST AID, NURSERY POINT, HOTEL RESERVATIONS, LOST AND FOUND, LEFT LUGGAGE, PASSENGER CHECK-IN, ELEVATORS.

### **Learn the following words:**

arrival time	hotel reservations	reception hall
barber	label	restaurant
beauty shop	left luggage	security check
car rental firm	loading bridge	snackbar
check-in desk	(passageway, finger)	suitcase
coach	lost and found	supermarket
departure time	nursery point	travel office
first aid	pharmacy	waiting lounge
flight information board	post-office	

### **Read and translate the text:**

## **PASSPORT AND CUSTOMS REGULATIONS**

The outgoing passengers must have an exit visa and a foreign passport. The incoming passengers must have an entry visa, a foreign passport and a vaccination certificate. The visas and foreign passports are produced to the Passport Officer at the Passport Control. On board of the plane the passenger is given an arrival card to fill in (his name in full, country of residence, permanent address, purpose and duration of visit and the address in the country he is sitting). Officials examine the passport and visa (to see if they are in order). They may check the certificate of vaccination. At the

Customs they examine the luggage. At every international airport there is a Customs Control to inspect the aircraft, the load, the crew's and passengers' luggage. The passengers fill in a customs declaration form. There are customs regulations that state what articles are liable to duty and what are duty-free.

Customs restrictions include a prohibited articles list. It is not obligatory for the crew to fill in a Customs declaration. The crew members are asked some questions about their hand luggage which is inspected on board.

**Answer the following questions:**

1. Have you got an exit visa and a foreign passport?
2. May I see your passport, please?
3. Have you got a vaccination certificate?
4. Will you produce your foreign passport?
5. Have you filled in the arrival card?
6. Will you write your name in full?
7. What is the country of your residence?
8. What's the purpose of your visit?
9. What's the duration of your visit?
10. Are your documents in order?
11. Is your visa in order?

**Read, translate and learn the text:**

## **THE AIRPORT**

This is the airport. It is 15 km from the city. There is an aerodrome, a terminal and some offices there. There are some runways and taxiways. There are some hangars. There is an apron and there are many stands for aircraft there. There are many passenger and cargo planes. There is a control tower to control aircraft movements. There is the passenger terminal. There is a Customs office where Customs officers inspect cargo to stop prohibited goods. There is a cargo terminal.

There is a settlement for the personnel. There is a hotel for passengers and crew members. There are many services at the airport. Many aircraft are standing on their stands, they are preparing for flights. Some are embarking or disembarking passengers, loading and unloading cargo. The airport services millions of passengers and handles millions tons of cargo.

There is a cargo unit at the airport — the cargo terminal. It guarantees transportation and forwarding of goods and documents.

Passenger aircraft carry passengers, freighters carry no passengers, they ship goods.

There is the warehouse to store goods. At the cargo handling center they receive consignment, store it and retrieve and place it on the aircraft at the Cargo terminal. They use manual cargo handling, mechanical systems and automated systems. They process (complete) air waybills for cargo carriage. They contact business customers who take the cargo to the airline cargo unit for despatch.

**Answer the following questions:**

1. Where is the airport?
2. How far is it from the city?
3. Is there a cargo terminal?
4. Is there a hotel for the crew members?
5. Where is a hotel for the crew members?
6. Where is the warehouse?
7. Where do they store cargo?
8. Is the warehouse far from the terminal?
9. Where is the passenger terminal?
10. Where is the cargo terminal?

**Revision**

**№ 1**

**1. Topic: Duties of a Flight Engineer**

**2. Translate into English:**

1. Нам нужен наземный источник питания для запуска.
2. Давление масла в редукторе было высокое.
3. Мы выполнили посадку для ремонта топливной системы.
4. У вас есть более высокая стремянка?
5. Вы можете обеспечить холодную воду для охлаждения колес?
6. Необходимо удалить снег с крыльев и стабилизатора.
7. Вам придется осмотреть двигатели № 1 и N 3.
9. Дозаправьте двигатели маслом.
10. Вы сможете помочь заменить колесо?
11. Вы пришлете вашего механика для проверки органов управления самолетом?

### 3. Answer the following questions:

1. What wheel are you going to remove?
2. Is it necessary to inflate the tyre?
3. Shall we send you a mechanic or a crew of mechanics?
4. Have you repaired the fuel pump?
5. Is it functioning normally?
6. When shall I take the chocks away?
7. How much fuel do you need?
8. How much time does it take to replace this plug?
9. How long have you been flying?
10. Are you going to replace or repair the faulty unit?
11. What engine shall we inspect?
12. Have you checked pressure in the hydraulic system?
13. Was there a leak in this tank?
14. Do you need maintenance?
15. Will you wash the oil filter?

### № 2

#### 1. Topic: Main Parts of the Helicopter.

#### 2. Translate the following sentences into English:

1. Нам придется заменить хвостовой винт.
2. Не подходите к хвостовому винту.
3. Остановитесь в 2 метрах от лопастей.
4. Нам нужен топливный насос и гидравлический усилитель.
5. Давайте заправим гидравлический бак-
6. Вы можете прислать машину для подогрева двигателей и редукторов?
7. Поставьте стремянку под хвостовой винт.
8. Протрите масло на редукторе.
9. У нас неисправен усилитель.
10. Мне нужна помощь для проверки лопастей несущего винта.

#### 3. Answer the following questions:

1. What is your problem?
2. What tools do you need?
3. Do you need a crew of mechanics?

4. What fault did you locate?
5. What unit must you repair?
6. How much water do you need?
7. Is there any faulty equipment?
8. Do you need maintenance?
9. Was there oil leak?
10. How much fuel will you take?
11. Do you need a GPU to start up the engines?
12. When shall I push away the stairways?
13. Is it necessary to drain waste water?
14. Are you short of fuel?
15. Are you going to replace the oil cooler?

### **№ 3**

#### **1. Topic: My Aircraft/My Helicopter.**

#### **2. Translate the following sentences into English:**

1. Уберите стремянку от хвостового винта.
2. Сейчас вы можете подъехать к вертолету.
3. Нам нужен масляный шланг.
4. Вы отправите нам тягач для разгрузки?
5. Не останавливайте топливозаправщик здесь.
6. Вы можете отключить источник питания.
7. Прекратите заправку, есть утечка топлива.
8. Выключите насосы заправщика.
9. Мне нужно ведро химжидкости.
10. Давайте проверим давление в колесе.

#### **3. Answer the following questions:**

1. Will you replace the wheel?
2. Were there any problems in flight?
3. Where was there oil leak?
4. Have you located any faults?
5. What tools may you need?
6. How can we help you?
7. What spare parts do you need?
8. Are the brakes in order?
8. Do you need a nitrogen bottle?

9. What grade of oil do you use?
10. Do you need any assistance?
11. Are brakes operating normally?
12. Shall we help you to replace the wheel?
13. How many jacks shall we send you?
14. Is it necessary to refuel all tanks?

#### **№ 4**

#### **1. Topic: My Flight with a Failure.**

#### **2. Translate the following sentences into English:**

1. Наш домкрат неисправен, нужна гидрожидкость для домкрата.
2. Установите колодам с левой стороны.
3. У нас повреждение крыла, пришлите бригаду механиков.
4. Вы можете прислать нам вашего специалиста для ремонта?
5. Мы ждем стремянку и вашего механика.
6. Тормозные колодки перегрелись.
7. Где я могу слить масло?
8. Давайте заполним этот бак питьевой водой.
9. Имеется трещина в тормозной трубке.
10. Благодарю за техобслуживание.

#### **3. Answer the following questions:**

1. Do you need any extra fuel?
2. How much fuel do you need?
3. Was there an engine failure in flight?
4. Why did you shut down this engine in flight?
5. Shall we check the pressure?
6. Do you need potable or technical water?
7. How long can you wait for spare parts?
8. How much oil do you need?
9. Are you going to cool wheels?
10. Were there any problems in flight?
11. What tools shall we send you?
12. Is there any trouble with this engine?
13. Was the oil pressure high or low?
14. Shall we inflate the tyre?

15. Are any wires damaged?

## № 5

### 1. Topic: My Helicopter.

### 2. Translate the following sentences into English:

1. Протрите масло с носовой стойки шасси.
2. У вас есть переходник?
3. Вам следует отрегулировать давление топлива в топливном шланге
4. Сработала сигнализация "стружка в двигателе".
5. Мне придется заменить колесо.
6. Нам нужна дозаправка, давайте заправим все баки.
7. Я обнаружил много масла в гондоле.
8. Нам придется заменить поврежденные провода.
9. Необходимо заменить заглушку, была течь масла.
10. Помогите мне заменить этот датчик, он не работает.

### 3. Answer the following questions:

1. Have you damaged the blade?
2. Will you replace the blade?
3. Have you got a connecting hose?
4. How much fuel do you need for refueling?
5. What gage has failed?
6. How many copies of the receipt shall I give you?
7. What unit are you going to repair?
8. Shall we send you two jacks?
9. What ladder do you need?
10. When may I remove the steps?
11. Shall we send you a toilet servicing unit?
12. Do you need de-icing?
13. What type of de-icing do you need?
14. What is normal pressure in the wheel?
15. Will you drain waste water?

## № 6

### 1. Topic: My duties.

### 2. Translate the following sentences into English:



1. Вы можете убрать лестницу от самолета.
2. Вы отправите нам трап?
3. Предъявите паспорт на масло и топливо.
4. Колодки убраны?
5. У нас проблема, нам нужен наш представитель.
6. У вас есть ведро для химжидкости?
7. Мы будем ждать запчасти для ремонта.
8. Давайте проверим топливный насос.
9. Двигатель № 1 не запускается.
10. Где я должен подписать требование?

**3. Answer the following questions:**

1. Do you need a maintenance stand?
2. Will you use a GPU?
3. What help may you need?
4. Have you got any problems with equipment?
5. Are you awaiting a tow unit?
6. What grade of oil and fuel do you use?
7. Will you be able to correct this fault?
8. Shall I push away the steps?
9. Will you replace or repair this unit?
10. Do you need compressed air?
11. Was there a crack?
12. What is the pressure in the oxygen system?
13. Will you fill the shock absorber with oil?
14. Have you got a burst tyre?
15. Shall we call you company representative?